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In an effort to coordinate information flow, a third inventory of British and American projects and activities in reading and English is presented. Entries are arranged alphabetically according to state or country and are identified as to study population level. There is also a topical index and an alphabetical listing of researchers. Reported information includes abstracts of (1) action projects seeking to exploit linguistic science and related fields, (2) projects seeking to explore ways of handling the special language problems of speakers of nonstandard English, (3) schoolbased comparative experiments in teaching beginning and remedial reading, (4) studies of language arts and English curricula with a view to modification and revision, (5) projects to prepare new teaching materials and/or tests in reading and English, and (6) projects to exploit audiovisual aids. Included are an evaluation form, project report sheet, and references. (WB)

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inventory of projects and activities in reading and english

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Center for Applied Linguistics Washington, D.C.

inventory of projects and activities in reading and english

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Center for Applied Linguistics   Washington, D.C.

PREFACE

The Center for Applied Linguistics distributed the first Inventory of Projects and Activities in Reading and English in February 1966 and a Supplement in July of the same year. Inventory Number 2 appeared in May 1967. This publication is part of an attempt to help alleviate a problem made evident by the tremendous expansion in the last few years of national efforts directed toward improved instruction in these fields. As the number of new projects and activities increased, duplication was inevitable. Productive exchange of ideas on common problems was severely inhibited by sheer lack of information. New efforts in one part of the country have remained largely unknown to scholars, teachers, and administrators elsewhere. With this Number 3 issue, the inventory enters its third year of helping to coordinate research activities in these fields by improving the flow of information.

Though the inventory's emphasis continues to be on national needs, efforts have been made to extend both the kind and degree of its concerns. We have tried to cultivate an international audience of those working toward improvement in the TENL area (teaching English as a native language), by encouraging foreign contributions to the inventory. Through the TENL Directory of Information Sources (see Appendix), we have tried to stimulate information exchange between activity-coordinating and information centers.

The Structure of the Inventory

The following types of research and application activities continue to be reported: (1) action programs seeking to exploit advances in linguistic science and related fields; (2) projects and activities seeking to explore ways of handling the special language problems of speakers of non-standard varieties of English; (3) school-based comparative experiments, many of which deal with various methods and materials used in teaching beginning and remedial reading; (4) studies of language arts and English curricula with a view to modification or revision; (5) projects to prepare new teaching materials and/or tests in both reading and English; and (6) projects to exploit audio-visual aids. Some of the projects included are marked "NPR" (not previously reported) after the title; these are activities which were not included in previous inventories because they were not known to us. Other descriptions are either updatings of current work or final summaries. In some cases we have received no recent information from the researcher but have chosen to include the description found in Inventory Number 2 because the project is still current. Beginning and terminal dates are given for each project when known; otherwise the date given is that of our most recent information. Inventory users will notice that they have four access channels through which the desired information can be retrieved. Information is classified by state, by level of instruction and by topic. There is also an alphabetical listing of researchers. No attempt has been made to evaluate these projects, and except for minor editorial revisions, the language of each description is the investigator's.

We have stressed that this document is part of an effort to help coordinate information flow; for a listing of American and British centers, clinics and other pertinent institutions, organizations and agencies, see the previously-mentioned TENL Directory of Information Sources. Please note that the directory is not a complete listing, and additions and corrections to the directory -- and to the inventory itself -- are solicited.

The reader will find enclosed a project description sheet form which should be used to supply new or additional information for inclusion in the next inventory.

ALFRED S. HAYES
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Language in Education Program

ARIZONA

Secondary

01. Exploration of the self-concept of retarded readers in relation to reading achievement. (NPR)

University of Arizona, Reading Development Center, Tucson. Ruth Strang, Frederick Keith Schwyhart. University support. Sept. 1964 - June 1967.

The goals and methods will be to study the self-concept of 35-40 ninth grade retarded readers, their initial self-concepts and any changes from a negative to a more positive self-concept during their participation in a reading improvement program. Six measures of the self-concept and four measures of reading and listening comprehension were obtained. An exploratory interview was held with each individual at the beginning and at the end of the year. The data obtained from each measure of the self-concept were categorized and tabulated, and its significance studied. The consensus of composite ratings of students' self-concepts (initial and final) were obtained and correlated with reading and with intelligence test scores. Case studies were made of students showing different kinds of relationship between the self-concept and reading achievement during the school year.

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Elementary

02. Evaluation of elementary school remedial and corrective language arts project.

Oakland Public Schools, California. Alden W. Badal, Andrew J. Viscovich. ESEA Title I support. Jan. 1966 - present.

The program objectives are: (1) to maintain the reduction of the pupil-teacher ratio; (2) to continue to provide several auxiliary services (e.g., psychological evaluation, individual guidance); (3) to continue to provide a variety of instructional materials; (4) to continue to provide extensive opportunities for cultural enrichment; (5) to continue to emphasize, according to need, developmental and remedial reading instruction; (6) to sustain the expanded effort in promoting effective school-community interaction; (7) to continue to provide teacher in-service education opportunities above pre-project levels; (8) to continue to extend the school year, for many, through summer school opportunities. An effort has been made this year to analyze preliminary results obtained from studies of the variable combinations of services provided in Oakland's compensatory education program. It is assumed that longitudinal data obtained on the various treatment groups studied this year and in the future will provide information which will assist in identifying certain program features which contribute to particular student behavior outcomes.

03. The process of learning to read -- theory and experiments.

Institute of Human Learning, University of California, 2241 College, Berkeley. Curtis D. Hardyck. USOE support. 1966 - 1968.

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The goals of this project are: (1) to systematically test by experimental methods a theoretical model of the development of reading ability; (2) to investigate the importance of muscular (proprioceptive) and auditory feedback in the initial development of reading ability; (3) to investigate the relationship of vocalization and subvocalization to the difficulty level of reading material; (4) to evaluate an effective technique for the elimination of subvocalization in adults; (5) to develop norms for the developmental stages of proprioceptive and auditory feedback in learning to read; (6) to interpret the experimental results in terms of potential changes in teaching methods. Initially, two experiments allowing specific testing of theoretical predictions will be performed on college students. Following these experiments, a normative study will be undertaken on grade school children, following the process of learning to read through several stages of skill formation. Following the development of norms, additional experiments will be performed testing predictions about the relative importance of stages of development in learning to read. Assessment of the results with possible application to teaching methods will then be done.

04. The pre-school language project.

University of California, Los Angeles. Evan R. Keislar. USOE support. July 1965 - June 1970.

Principles of conventional and programmed language instruction will be developed and evaluated for use with pre-school children who are socially and economically handicapped. A test will be made of the hypothesis that special instruction in the use of language with such children will result in improved language ability and more rapid academic progress during the first year of school. Disadvantaged children, 3 to 5 years of age, from various day care centers in Los Angeles will be tested on different principles of instruction in the use of language. Based on the results of these investigations, a major 3-year experiment involving about 400 children will be accomplished. Measures to be used as criteria for the major experiment will include: (1) ability to understand instructions, questions, and information presented orally; (2) ability to speak, using different linguistic forms and vocabulary; and (3) the use of language effectively in logical thinking. The most important criteria will be academic progress during the first grade. This will be a two-year course. The first year's course has been completed and is presently being revised. The second year's course is also now being written. The first course contains tapes, 15 minutes long, to be used 3 or 4 days a week. There are no student texts, but the Teacher's Manual has a script of the tapes and instructions. Since the materials are programmed, developers include graduate students in education with backgrounds in programming, while teachers involved in using the materials are sub-professional day-care people. Although at present none of the materials are available, the researchers hope for publication soon.

05. Evaluation of elementary school remedial reading project. (NPR)

Oakland Public Schools, California. Richard A. Laliberte, William R. Murray, Barbara Patterson. ESEA Title I support. Jan. 1966 - present.

The remedial reading program, an element of the total ESEA Title I Project, had the same overall objective the general or corrective program (Program of Compensatory Education, Oakland Public Schools, Oakland, California) had: to help stu-

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dents attending the public and parochial target area schools learn to read or learn to read more proficiently. Each remedial reading teacher served approximately six to ten students during instructional sessions which ranged from approximately 30 to 50 minutes per class period. An attempt was made at each school to schedule students having similar skill deficiencies for the same remedial session, thereby allowing the remedial reading teacher to focus her instruction on problems common to the group, as well as to provide needed individual assistance. Varied materials and instructional methods were employed by the remedial reading teachers as they worked on unique reading difficulties, and continued efforts were made to use text and other materials the students had not previously seen. Approximately 550 students in the 11 public and 7 parochial elementary schools within the ESEA target area participated in special remedial reading classes designed to maximize individual instruction for students with seriously retarded reading skill levels. The teachers involved in this program were specialists in the teaching of reading. In their efforts to improve reading skills, a wide variety of instructional techniques, materials, and equipment, were utilized. Achievement test progress of the total group of ESEA remedial reading students is encouraging. Some students were able to maintain a month per month growth rate for the duration of the project. Others, although not progressing on a month per month basis, were able to progress at a rate consistently higher than that at which they had progressed prior to their involvement in the remedial reading program. Statistically significant pre-post test gains were achieved for each group of students for whom scores were analyzed.

06. A reading readiness training program for perceptually handicapped kindergarten pupils of normal vision. (NPR)

Stanford University, California. Daniel W. Meyerson. USOE support. 1967 - .

Based on the hypothesis that Kephart Perceptual Training would sharpen visual perception in perceptually handicapped kindergarteners, this program studies 58 such children according to three categories: (1) the Frostig Developmental Test of visual perception; (2) socio-economic status; and (3) visual acuity (keenness). The children were divided into two groups: (1) Kephart-trained, 15 minutes per day; and (2) no special training. At the end of 8 weeks, Ginn Pre-Reading and Lee-Clark Reading Readiness Tests were administered. The 3 categories were examined by analysis of variance. Results showed no significant differences as the result of Kephart training. The children of high socio-economic status were better prepared for reading, regardless of training or visual adequacy. Socio-economic factors not controlled for in this study may affect reading readiness more than do either Kephart training or visual acuity.

07. A study to apply successive evaluation-revision procedures to improve reading instruction in first-grade classrooms. (NPR)

System Development Corporation, Santa Monica. Gerald Newmark, Ralph J. Melaragno. The Ford Foundation support. June 1966 - Dec. 1967.

The primary objective of the study is to develop operational procedures for improving classroom instruction in reading for first-grade Mexican-American students. Specifically, the objective is to investigate the extent to which procedures of "shaping" materials for individual learner (programmed instruction) can be applied successfully to a total classroom configuration in which interactions among students, materials, and the teachers are considered. The study has involved three phases: (1) the identification of a problem area in reading for first-grade Mexican-American students; (2) the empirical development of instructional procedures to overcome the problem; and (3) the empirical development of a total instructional system, integrating the instructional procedures and necessary support activities. The second and third phases have been carried out by applying the evaluation-revision strategy: a first version is prepared and tried out; evaluation of its effectiveness leads to a revision; the revision is tried out and again revised; evaluation-revision cycles continue until specified objectives are achieved.

08. Development of an auditory perception test for young children.

San Diego State College, California. Ramon Ross. No formal support. 1966-1968.

This investigation attempts to identify and categorize the various subskills associated with auditory perception of preschool and primary school children. Once these subskills are identified, instructional techniques may be developed that will provide the child with specific training in auditory perception skills he is deficient in.

09. A comparison of three approaches to the teaching of reading: a longitudinal study. (NPR)

Reading Center, Chico State College, California. S.W. Shnayer. Chico State College support. 1965-1968.

This comparative study utilized a modified basal reader, i.t.a., and linguistic materials with 3 successive 1st grade classes, each taught by the same teacher, and followed for 6 years. Analysis of data is concerned with factors related to learning by each method. Individual case analysis rather than just gross group comparisons will be utilized. Results of first 3 years are now in the process of analysis.

10. An automated primary-grade reading and arithmetic curriculum for culturally deprived children. (NPR)

Institute for Mathematical Studies in the Social Sciences, Stanford University, California. Patrick Suppes, Richard C. Atkinson. USOE support. July 1964-June 1968.

An IBM 1500 central process computer controls 16 student terminals in the Brentwood Elementary School in East Palo Alto, California. Four classes of first-grade students study reading under computer control in the morning, and four classes of second-grade students study mathematics in the afternoon. The equipment at the student terminals consists of a picture projector, a cathode ray tube, a light pen to be used on the CRT, a modified typewriter keyboard, and an audio system which can play recorded messages. The goal of the Brentwood Project is to discover a viable theory of instruction that will prescribe the conditions under which an instructional procedure optimizes learning. The curricula are organized so that each child can progress at his own pace, branching along a pathway of materials that reflect his particular competencies. The individualization of the theory of instruction is achieved by establishing a means of determining the best future program of instruction for a child based on a sufficient history of his past responses. Thus, the future materials presented to a child are controlled by such factors as the correctness of his past responses, the length of time he took to make them, and the nature of his past learning patterns.

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11. A study of the use of the initial teaching alphabet with three, four and five year old deaf and hard of hearing children. (NPR)

Compton City Schools, California. Myra Jane Taylor. USOE Title III support. 1965-1968.

The objectives of this project are: (1) to investigate the problem of communication of deaf and hard of hearing children; (2) to investigate the use of a basic consistent representational teaching stimulus for receptive and expressive language; (3) to investigate the use of a single representative phonetic device thus reducing the number of multi-system approaches to develop and facilitate retention of language for three, four and five year olds enrolled in an oral-aural integrated-type of educational program for the deaf and hard of hearing; (4) to investigate the use of a single phonetic device in the teaching of deaf and hard of hearing, three, four and five year olds as the most effective measure and economical use of time necessary in the teaching of a pattern of communication together with a reinforcement of conceptualizations. Three, four and five year olds will be taught the i.t.a. This device will be used in written form for their news and reading as well as for speech development. Children who have been exposed to the same type of program will be compared statistically as to rate of language development in spontaneous speech, reading, and writing. Information as to background, etiology, hearing loss, native ability, and achievement for control and experimental group will be processed by available computers.

12. Screening for potential reading difficulties.

Fresno City Unified School District, 2348 Mariposa Street, Fresno, California 93721. Margaret L. Thomas. ESEA support. Spring 1966-Spring 1969.

The purpose of the project is to select from neurological and psychological tests and examinations a protocol which could easily and quickly be given routinely to children prior to or soon after entry into school as a screening device to detect brain functioning irregularities which might result in reading disabilities, and to apply the technique to children in the Fresno City Unified School District with plans to make the protocols available for wider use after evaluation. The particularly innovative quality of the proposal is based on the concept that the brain functioning irregularities which might result in difficulties in learning to read could be detected in the preschool or beginning school child by applying knowledge drawn from the fields of neurology and psychology. The expected outcome of producing a developmental dyslexia screening protocol has significance for improving instruction. This instrument will be sensitive and will easily be applied by classroom teachers. Schools carry a great number of children who are educational and emotional casualties, bright and able children who have more or less severe reading disabilities. Currently employed remedial efforts have not answered the problem. Tools are needed to predict early and with reasonable certainty boys and girls who are liable to encounter difficulty. Once these children are identified, specific techniques can be applied from the very beginning of school to prevent academic casualties.

Secondary

13. Teaching culturally disadvantaged pupils (grades K-12). (NPR)

University of Southern California, Los Angeles. Kenneth R. Johnson. Local support. 1966-1968.

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This series was offered for the first time in 1966-67 and has been revised for the 1967-68 school year. Each monthly unit deals in a concise, nontechnical manner with one phase of the subject. While this extension service is primarily designed for use in in-service education meetings, its comprehensive coverage and many practical suggestions for regular classroom teaching can also be valuable for private study by individual educators. The following units are available from Science Research Associates, Inc., of Chicago:

UNIT ONE: The Culturally Disadvantaged Pupil -- Part I (October, 1967)
UNIT TWO: The Culturally Disadvantaged Pupil -- Part II (November, 1967)
UNIT THREE: The Culturally Disadvantaged Negro Student (December, 1967)
UNIT FOUR: Other Culturally Disadvantaged Groups (January, 1968)
UNIT FIVE: Teaching the Culturally Disadvantaged Pupil -- Part I (February, 1968)
UNIT SIX: Teaching the Culturally Disadvantaged Pupil -- Part II (February, 1968)
UNIT SEVEN: Improving the Language Skills of the Culturally Disadvantaged (April, 1968)
UNIT EIGHT: Improving the Reading and Writing Skills of the Culturally Disadvantaged (May, 1968)

14. Language ability: grades ten, eleven, and twelve. (NPR)

University of California, Berkeley. Walter Loban. USOE support. Feb. 1964-Feb. 1967.

The purpose of the proposed research was to make effective use of large quantities of untapped data obtained during an intensive, thirteen-year longitudinal study of children's language. The data available for analysis consist of annual tape recordings of the subjects' oral language; typed transcripts of these oral interviews; samples of the subjects' written languages; I.Q. scores; test scores on reading, listening and the use of subordinating connectives; supplementary data on socio-economic status school achievement, school attendance, and general state of health. Each type of data was obtained on a representative sample of 338 subjects during the entire thirteen-year period of their schooling (K-12). The main focus of the research (phase 2) was on developing new techniques and new methods of analysis. The ultimate purpose, one which would be of great value to the field of education, was to devise a precise system of measurement which will make it possible to predict the exact stages (years or groups of years) in which the ability to use language accelerates, decelerates, or remains relatively constant. Basically, the procedure used consisted of a series of statistical analyses allowing the investigator to obtain answers to a series of stated hypotheses. The hypotheses dealt with growth patterns in linguistic development, interrelations among the language arts, and the effect of socio-economic status on language ability. One method of analysis on which preliminary trials were run was a stochastic growth model, a sophisticated statistical technique which has not been applied to any longitudinal data in language.

15. Demonstration programs in reading. (NPR)

University of California, Davis. Wilson Riles, Ruth L. Holloway, Burt Liebert. State of California (Authorized by Senate Bill 28, 1966) support. June 1967-June 1970.

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This project will attempt to develop innovative methods of teaching reading to the culturally diversified student in the junior high school. Funding is provided to the districts by the state, and each district is developing its own unique approach. Through conferences, observations, and reports, the results obtained by each district will be disseminated. Some of the methods now in current trial include: (1) involvement of parents in the educational process; (2) extensive use of aides from the community; (3) students serving as tutors instead of going to reading classes; (4) cooperation with industry and local universities and colleges; (5) simulation and gaming; (6) linguistics; (7) attention to community values; (8) saturation learning (students live on the school site).

16. Cultural factors operating in a test of English as a second language. (NPR)

University of Southern California, Los Angeles. Robert B. Kaplan, Robert A. Jones. No formal support. 1967.

Several prior attempts have been made to evaluate cultural factors in a test of English as a second language. These attempts have been frankly abortive. The data has been regrouped into grammatical categories as well as linguistic categories based upon the native languages of the sample population, and factor analyses are being conducted along these planes to determine whether any cells in the resulting matrix can be culturally linked and then whether the derived data may be used in structuring other instruments which may be -- not culture-free -- but culture-fair for a heterogeneous college-level foreign-student population.

17. Methods of teaching Braille reading. (NPR)

San Francisco State College, California. Berthold Lowenfeld, Georgie Lee Abel. USOE support. 1967.

This project describes the status of Braille reading instruction in local and residential schools in the United States in 1965, presents statistics describing personal characteristics of 200 students tested as part of this study, and presents analysis and interpretation of the data gathered from the tests. The status of Braille reading instruction was determined from questionnaires filled out by 520 teachers. No consistently different patterns of instruction were found. In the second part of the study, tests for determining reading rate and reading comprehension of Braille readers were given to 50 fourth graders and 50 eighth graders from local schools and an equal number from the same grades in residential schools. The results were compared with measures of the same abilities in visual readers. Results of the study showed that age differences between blind and seeing children, as grade-level groups, were far less than reported in the past. Fourth-grade blind children were 1.2 years over age, and practically no difference was found for eighth graders. Intelligence levels of fourth-grade students were close to average, and eighth graders were above normal. Reading comprehension of the blind children was equal to that of the seeing children in the fourth grade, but was superior to the comprehension of seeing children in the eighth grade. Most students with high comprehension were fast readers, and those with low comprehension were slow readers. Reading behaviors found to be characteristic of the slow and fast readers were described, and recommendations for reading instruction were given.

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18. Thinking improvement project. (NPR)

University of California, Santa Barbara. Sara W. Lundsteen. Charles F. Kettering Foundation support. 1966-1968.

Through this project a theory was presented inductively for teacher-training purposes through examples of pupil-teacher verbalization and cartooning using the overhead projector, plus the video tapes of demonstration teachers. New alternate versions for open problem-solving tests have just been constructed. A battery of nine measures, three to cover each of the treatment variables or emphases attached to the central program (problem solving, listening and qualitative levels of thinking) has been constructed, and various forms for collecting data from pupils and teachers have been developed. Employing an innovative three-column structure and systematic and accumulative sequence of concepts, a total of 71 lessons has been constructed to date. These include 23 lessons for the general problem-solving curriculum in the language arts, 16 lessons for the listening emphasis, 16 for the problem-solving emphasis and 16 for the emphasis on qualitative levels of thinking. Agenda for five seminars or monthly curriculum meetings have been constructed. Introductions, scripts and follow-up questions for 24 television scripts are completed.

19. A planning project to study the feasibility of computer production of Braille materials for public school blind children. (NPR)

Department of Administration and Supervision, University of California, Los Angeles. Calvin C. Nelson. USOE support. 1967.

The objectives of this exploratory project are: (1) to examine the need for various contracted forms of Braille in public schools; (2) to determine the manner in which computerized Braille may be most readily made available to blind school children; and (3) to do exploratory work for developing a grade two Braille translating program for the Honeywell 222 High-speed Braille Pointer. Procedural activities will consist of: (1) the development of a model program with preliminary testing for a grade two Braille translator system; (2) the determination of need for Braille materials; and (3) discussions with public school personnel, University personnel, and volunteer transcriber groups relative to their respective roles in making computerized Braille materials available to blind school children.

20. The power of composition: thinking, discussing, writing. (NPR)

Santa Clara County Office of Education, 70 West Hedding Street, San Jose 95110. Viola M. Owen. County Service Funds support. 1967-1969.

The major goals of this project are to enable each individual to the best of his ability to: (1) engage in speaking and writing for many different purposes; (2) examine the thinking and emotional appeals in his own speaking and writing and that of others; (3) understand the importance of the spoken and written word in everyday life; and (4) assume his share of responsibility for the uses of language in improving the human condition.

21. Linguistic considerations in the design of the Stanford computer-based curriculum in initial reading. (NPR)

Stanford University, California. Theodore S. Rodgers. USOE support. On-going.

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Some views on the role of linguistic science in the design of reading materials and the teaching of primary reading are contrasted. Four areas of linguistic study relevant to reading are examined briefly: (1) the structure of the speech system; (2) the structure of the graphic system; (3) the relationship of graphology to phonology; and (4) the comparative syntax of spoken and written English. Some classical arguments as to the relationship of linguistic description and psychological function are re-examined in terms of problems in design of an initial reading curriculum. The adaptation of the curriculum to the individual learning characteristics of the student participants was viewed as a central problem of education and of computer-assisted instruction particularly. The Stanford curriculum in CAI in beginning reading is based on the following seven psycholinguistic tenets: (1) teaching spelling and reading independently; (2) initiating reading with a decoding stage; (3) associating sight to sound between letter patterns and vocalic center groups (VCG); (4) scaling the difficulty of the VCG units for presentation; (5) presenting graphic patterns as members of a rhyme and alliteration set in a matrix format; (6) presenting word items in various contexts, emphasizing the morphological, syntactic, and semantic functions; and (7) presenting words in various contexts in which pronunciation, grammar, and meaning convey the writer's intent. These tenets are discussed in terms of contemporary pedagogical opinion, related empirical research, experimental investigations by the Stanford group, and practical consequences in curriculum materials.

22. Some relationships between reading interests and reading comprehension. (NPR)

Reading Center, Chico State College, California. Sidney W. Shnayer. Support: ?. 1967.

The main conclusions of this project were: (1) reading interest, as a factor of reading comprehension may enable most students to read beyond their measured reading ability; (2) high ability students are less affected by interest than low ability students; (3) reading interest is significant to children with reading ability two years below grade level to one year above grade level. Beyond that, high ability is sufficient to maintain comprehension; (4) for readers at or below grade level, there is reason to believe that low interest has a negatively cumulative effect; (5) a reassessment of current methods of evaluating children labeled as "poor readers" may be necessary in order to determine if the reader's response is the result of low ability or low interest; (6) there is some evidence to indicate that commonly held expectations of performance of girls and boys need to be re-evaluated particularly with respect to the influence of reader interest.

Elementary Through Secondary

23. An experimental reading program for neurologically impaired, mentally retarded, and severely emotionally disturbed children.

The Neuropsychiatric Institute, University of California, Los Angeles 90024. Frank M. Hewett, Donald L. Mayhew, Ethel Rabb. State support. July 1964-July 1967.

The experimental reading program has as its goal, establishment of a 155-word basic sight vocabulary contained in the 3 pre-primers and primer of the Ginn & Co. Basic Readers to subjects who met the criteria of having some recognizable speech. Knowledge of the alphabet and ability to recognize forms were not prerequisites

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of the program. A five part lesson based upon words introduced in each chapter of the Readers was developed. Each lesson was administered by a teacher in a one-to-one relationship with the student and took about 25-35 minutes in sessions given on the average of 3 times per week. Part I consisted of oral reading review of the previous day's lesson. Part II, the vocabulary building section, involved the systematic presentation of new words and review words in a manually operated teaching machine (Grolier min/max). In Part III of the program the student read the new chapter of the primer containing the words just learned during the vocabulary section. Part IV, the comprehension section, involved answering questions about the content of the new chapter. The final phase, Part V, involved a set of discrimination exercises with the newly learned words. An errorless training sequence was developed for children unable to follow directions or attend to tasks. This sequence involved a series of simple discrimination tasks first utilizing color, next geometric forms, and finally word symbols. About 30 children aged 5 to 21 participated in the program from 2 to 9 months. No subject failed to make progress in the program, although progress was at individual rates and was motivated by a variety of reinforcers adapted to the individual (candy, money, trinkets, social praise). Studies undertaken as part of the project included withdrawal of extrinsic reinforcers and withdrawal of parts of the program. Utilizing the single subject design model, it was found that rates of progress were not significantly altered as a result of experimental reinforcement or program conditions. Studies currently in progress involve use of different personnel other than teachers to carry out the program, and also being developed are procedures to better shape comprehension and phonetic skills of the child.

COLORADO

Elementary

24. Content analysis and children's responses to first-grade readers in the United States and foreign countries.

University of Colorado Medical Center, 4200 East Ninth Avenue, Denver. Gaston E. Blom, Richard R. Waite. USOE support. August 1965-June 1968.

Goals: (1) A content analysis of commonly used first grade reading textbooks to evaluate developmental and cultural appropriateness and interest. (2) Cross national comparisons with reading texts from other countries along similar dimensions and dimensions of attitudes and values. (3) Change in content over historical periods. (4) Study of multi-ethnic urban readers. (5) Children's responses to the content of stories. (6) Spontaneous reading interests of first grade children. (7) Eventual demonstration of how content influences motivational interest to read. Approach: (1) Stories rated along dimensions of age of activity, sex of activity, theme, various attributes of characters, outcome, environmental setting, and ethnic composition. (2) Data analyzed by computer methods - frequencies, cross correlations, factor analysis. (3) Development of a reading interest inventory for children. (4) Rating of spontaneous stories presented by children. (5) Rating of books selected by children in school libraries. (6) Development of dimensions for attitudes and values. Results to date: "Children's Interest and Story Preferences: A Critical Review of the Literature." Elementary School Journal, December, 1966. "Motivational Aspects of First Grade Reading

Texts." For April, 1967 publication in Elementary School Journal. "Ethnic Integration and Urbanization of First Grade Reading Textbooks." For April or July, 1967 publication in Psychology in the Schools. "Content Analyses of First Grade Reading Textbooks." Submitted to Reading Research Quarterly. A monograph - "A Teachers' Guide for Selecting Stories of Interest to Children - The Content of First Grade Reading Textbooks." Submitted to Wayne State University Press. Project Literacy Presentation, September, 1964. Motivational Content Analyses of Primers, Project Literacy Report, June, 1966. Prediction of future course of this research project: It is hoped that the research findings will be utilized in the development of more appropriate and interesting content of stories in first grade reading textbooks. Cross national data on content will clarify appropriateness issue as well as reflect differences in cultural attitudes and values. Data on reading disability in various countries may help clarify basis of sex differences.

25. Perceptual development as related to reading progress. (NPR)

Department of Psychiatry, University of Colorado Medical Center, 4200 East Ninth Avenue, Denver 80220. Mark Rudnick. USOE support. 1966-1968.

A series of experiments are planned to investigate some aspects of the relationship of perceptual development to reading progress in elementary school age children. The research is designed to make a more adequate test of the hypothesis that auditory-visual transposition is related to reading, and to determine that advances in this ability precede advances in learning to read, rather than the reverse. A method has been devised to separate the variables of auditory-visual transposition, temporal-spatial transposition, and temporal and spatial pattern perception. The relationship of reading to each of these variables is to be determined.

26. Sex role models in primary reading texts of the United States: 1600-1966 and other related studies. (NPR)

University of Colorado Medical Center, Denver. Sara F. Zimet, Gaston E. Blom, Richard R. Waite, John L. Wiberg. USOE support. 1964-1966.

It is the purpose of this study to examine the sex role models portrayed in primary reading texts used in the U.S. From 1600 to 1966. The investigation is concerned primarily with the following questions: (1) Are the sex role models portrayed in the primary reading texts in accord with the behavior patterns and expectations of the time period during which the readers were being used? (2) Are the male and female sex role models portrayed by the texts clearly differentiated during the different historical periods? (3) Are success and failure outcomes of the stories related more to one sex than to the other sex? (4) Are the behavior expectations represented in the reading texts limited to one socio-economic and cultural class throughout the six contiguous historical periods? (5) Is there a sex bias related to authorship and selection of stories in the readers? It is hoped that by examining the content of reading texts along the dimensions suggested by these questions teachers, textbook authors, and textbook publishers will focus their attention on the nature of the content of the readers and on their responsibility in transmitting it.

COLORADO

27. An increase in reading efficiency utilizing specific suggestions. (NPR)

Colorado State University, Fort Collins. L.J. Donk, R.G. Knudson, R.W. Washburn, A. Goldstein. No formal support. On-going.

The purpose of the project is to assess the feasibility of increasing reading efficiency through the use of hypnotic suggestions. Initial studies have been made to determine whether this can be accomplished through hypnosis. Another study has been made to determine choice of hypnotic/or hypnotic-like techniques for maximum results. Further studies will involve assessments of the endurance of the technique, methods of maintaining endurance, and methods of giving the subject autonomous control over the procedures involved. The experiment showed that reading speed was significantly increased and comprehension maintained by hypnotic procedure.

CONNECTICUT

Secondary

28. Teaching standard English as a second dialect, grades 7-12. (NPR)

Hartford Board of Education. Robert L. Twiss, Caroline Hamsher. State Aid to Disadvantaged Children support. July 1967-June 1968.

The objective is to devise a program of oral and written lessons which will help pupils limited by a non-standard dialect to adopt standard English as a second dialect. The work is being conducted in four stages: First, an informal speech survey will be undertaken in the validated secondary schools of Hartford standard. The results of this survey will also be compared with those from an earlier unreported survey taken among first graders in Hartford. Second, oral and written lessons will be designed to help pupils move from dialect patterns to standard patterns. Motivation will be an important consideration in this program. Third, these lessons will be piloted in the schools, and revisions will be made in the light of experience. Fourth, an attempt will be made to measure results in pilot classes. Once the teaching methods and materials have been established, instruction in standard English as a second dialect will become a part of the English program of studies.

DISTRICT OF COLUMBIA

Elementary

29. Sequence factors related to problems of oral language production in linguistically handicapped children. (NPR)

Children's Hearing and Speech Center, 6212 Crathie Lane, Washington, D.C. 20016. Edna K. Monsees. No formal support. 1964-1966.

DISTRICT OF COLUMBIA

Twenty-eight children, age 6-1 to 12-11 years, with oral language production characterized by markedly reduced intelligibility, twenty normal first-graders, and twenty normal third-graders were tested on seven experimental tasks. The tasks involved imitation of isolated phonemes, making a same-different judgement of nonsense syllables, and repetition and blending of phoneme sequences. The researcher concluded that the combination of: (1) markedly reduced intelligibility coupled with good ability to articulate isolated phonemes; (2) use of deviant grammatical forms in expression; and (3) problems in learning to read is suggestive of a syndrome that places the problem in the area of language disorder or language disability rather than in the category of simple functional articulation defect. The syndrome suggests a diffuse type of language disorder: "diffuse" in the sense that it seems to pervade not only oral language production skill areas but reading skill areas as well. If such a diagnostic category of "diffuse language disability" is tenable, it suggests that the therapeutic or remedial program be guided by a reading-speech-language coordinated team or specialist.

Elementary and Adult

30. Pattern perception in relation to reading habits. (NPR)

George Washington University School of Medicine, Washington, D.C. L.G. Braine. U.S. Army support. 1965-1967.

This study will contribute to the general problem of the way in which the processing of visual information is influenced by specific visuo-motor experiences. Perception of non-alphabetical material in left and right visual fields is being studied in Israeli subjects, who have had a great deal of experience in reading from right-to-left, for comparison with similar data previously gathered on American subjects, who read from left-to-right. Accuracy of perception in the different fields is being measured by tachistoscopic methods. Two groups of subjects have been investigated -- college students who are comparable to the American subjects studied and fifth-grade school children, carefully screened to exclude those who have had any experience reading a language from left-to-right. The results indicated the need for both younger and older school subjects, and testing will be completed soon on these additional subjects.

31. Interdisciplinary Committee on Reading Problems (NPR)

Center for Applied Linguistics, Washington, D.C. 20036. Doris V. Gunderson, Ford Foundation support. Sept. 1967-March 1969.

The principal objectives of this research committee are to: (1) identify the problem of reading disability; (2) define it; (3) describe it; (4) determine how it is being managed at the present; and (5) make concrete proposals for improvement. There are six task forces dealing with specific areas of reading problems: (1) definition and etiology; (2) diagnosis and early prediction; (3) incidence and implications; (4) treatment configurations in an educational setting; (5) treatment configurations in other settings; and (6) administrative aspects of school programs. Each task force will produce state-of-the-art papers after a thorough study of the literature. Directions for further research will also be included in the reports. Committee members represent such disciplines as neurology, psychiatry, pediatrics, linguistics, psychology, sociology, anthropology, and education.

DISTRICT OF COLUMBIA

32. The Sociolinguistics Program. (NPR)

Center for Applied Linguistics, Washington, D.C. 20036. Roger W. Shuy. Carnegie Corporation, National Institute of Mental Health and USOE support. 1966-1969.

This project has four major goals -- linguistic, sociolinguistic, cultural, and pedagogical. The linguistic results will be a description and analysis of non-standard Negro English as it is used in Washington, D.C. and Detroit, Michigan. The sociolinguistic efforts will be directed toward a description and analysis of the linguistic correlates of social stratification as well as small group interaction. The cultural objectives will be aimed at developing demographic guides to research and at studying language as a reflection of socio-cultural organization. The pedagogical goals will be: (1) to develop oral language materials in standard English for speakers of non-standard varieties; (2) to study dialect interference as it relates to beginning reading development; (3) to train teachers not only to understand the social structure of language, but also to understand the content and theory relevant to this knowledge; and (4) to enlarge teacher's awareness of the legitimacy of various social dialects and of the importance of dialect switching.

33. A programmed reading method for mentally handicapped.

Institute of Educational Research Inc., 2900 M Street, N.W., Washington, D.C. Myron Woolman. USOE support. 1968. (NPR)

The subject of the proposed study will be 40 classes of educable, trainable, slow learner, retarded and/or emotionally immature children from (1) culturally advantaged and (2) culturally disadvantaged communities. Experimental classes will use the Basal Progressive Choice Reading Program (BPCRP); control classes will use current school methods. As part of the present study we will attempt to confirm or deny the possibility that BPCRP-trained children are more upwardly mobile than non-BPCRPs in the school context. Although all children will be given a battery of tests, (IQ scores and test information will be obtained) the prime criterion for this study will be effects related to improve adaptation to the school environment (upward school mobility). The prime criteria will compare (1) proportions of E and C children upgraded to more demanding school work, and (2) ability of E and C children to meet the academic and behavioral standards of the classes to which they are assigned.

FLORIDA

Elementary

34. PLATS (Project for Language Arts Teachers - Elementary).

Dade County Board of Public Instruction, 1410 N.E. 2nd Avenue, Miami. Leonard Frischman. ESEA support. On-going.

The purpose of the project is to train teachers to provide programs of language development for disadvantaged children. After an initial workshop emphasizing both child growth and language development, the PLATS teachers were placed in schools in which they functioned in team teaching situations with teachers of primary children. The responsibilities of the PLATS teachers were to introduce methodology and materials to improve the teaching act and thereby to increase the language facility of the pupils. The project is expected to produce improved teaching materials designed especially for the pupils in the schools involved. By providing experiences to extend the backgrounds of pupils, teachers try to improve the children's self-concept. Such experiences are also intended to stimulate children to participate in class activities. To further both these goals, materials with multi-sensory appeal are being developed. One such effort is a weekly telecast prepared especially for use with these pupils.

35. Programmed reading instruction for culturally deprived slow learners. (NPR)

University of South Florida, Tampa. Alden S. Gilmore. USOE support. 1967.

A pilot study will be conducted to determine the effectiveness with slow learners of instructional materials previously developed for use with retarded children. A total of 36 subjects will be used and divided into three subgroups of 12 each. The first experimental group will receive programmed instruction by teaching machines, the second experimental group will receive instruction via programmed workbooks. The control group will be pre- and post-tested but otherwise will receive only the usual classroom instruction. The subject content will consist of the first 16 units of programming developed under Grant OE 7-19-0315-291 "Further Development, Comparison, and Evaluation of Programmed Instruction for Retarded Children." These 16 units represent 2,400 programmed frames presenting approximately 80 words in word, phrase, and sentence form. Testing procedures will include administration of the: (1) Peabody picture vocabulary test; (2) the Gates reading achievement test; and (3) a specially prepared comprehension test used in context. Subjects will be tested upon completion of the 2,400 frames and retested 30 days later as a measure of retention. Statistical analysis will be used in addition to observation data obtained on: (1) attention spans; (2) motivation; (3) transfer of learning; (4) stimulations of subjects relative to other classroom learning situations; and (5) changes in adjustment and social attitude.

36. READS Program (Reading Education and Diagnostic Services).

Duval County Board of Public Instruction, 330 West 9th Street, Jacksonville 32207. Esther E. Miles. USOE support. 1966 -

The goals of the READS Program are the following. Reading Achievement: (1) to improve performance as measured by standardized achievement tests; (2) to improve classroom performance in reading beyond usual expectations. Ability: (1) to improve children's verbal functioning; (2) to improve the non-verbal functioning level of the children. Attitudes: (1) to improve the children's self-image; (2) to change (in a positive direction) the children's attitudes toward school and education; (3) to increase the children's expectations of success in school. Behavior: (1) to reduce the rate and severity of disciplinary problems; (2) to improve and increase the children's attention span. Conditions Related to Learning: (1) to improve the physical health of the children; (2) to improve the children's emotional and social stability and/or that of their families. Teacher-made reading kits are being prepared as an in-service project in order to effectively teach skills in individualized

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reading programming. There will be a special provision in the summer program for a curriculum committee to work on sequential development of activities in the areas of perception and readiness. Of further significance is the fact that extensive use of the language experience approach is being utilized. It is hoped that much new reading material more nearly in keeping with the child's interests and his use of language will be developed and shared by many of the classes.

Elementary and Adult

37. Corrective Reading Project.

Polk County Board of Public Instruction, Box 391, Bartow. Alice Woods, Elizabeth Stevenson. ESEA support. 1966-1969.

This corrective reading program is focused on elementary students in their 3rd and 4th years in school and in 7th and 10th grades. The aims are to help students correct reading problems that could not be dealt with in the usual crowded regular class. Classes are small (3-10), thus allowing much time for the special reading teacher to diagnose and remediate for the individual child. In the elementary school one-half of the project involves the developmental reading program whereby the reading resource teacher goes into the classroom to assist the classroom teacher in upgrading her total reading program. Three courses in teaching of reading were sponsored for in-service training of these teachers, before they began their remedial instruction classes, with professors from the University of Southern Florida. The last was a five-week workshop in which 40 children were brought in to work with the 40 teachers. Many materials were examined and used. Consultants were invited into the county to speak to special teachers and any interested persons.

38. Practicum in reading for subject teachers.

Pinellas County, 1895 Gulf to Bay Boulevard, Clearwater, Florida 33515. Virginia P. Gates. USOE-ESEA Title I support. Sept. 1967-Feb. 1968.

A truly effective reading program must provide for reinforcement and maintenance of the skills and learnings gained by the students and can best be achieved through cooperation of content area teachers, many of whom have indicated their concern but feel they lack the preparation or training needed to teach reading skills pertinent to English, Mathematics, Science, Social Studies, etc. The Practicum's reading teachers of each school faculty shared their knowledge and materials to equip subject teachers, thus progressing toward meaningful transfer of students' reading skills throughout their educational programs. This project's significance lies in its mandate for changes in secondary school teaching methods, materials, and consequently, curricula. By stressing the necessary reading techniques pertinent to his own field, the subject teacher will become a more critical appraiser of his textbooks and instructional procedures, and will also be a more perceptive judge of his students as individuals. Realizing that a basic text or two cannot adequately arouse and nourish their varied hungers, he must provide multi-level, multi-interest, multi-method lesson presentations. Perhaps freeing himself from an unsure dependence upon a "text-in-hand" will be the first and longest step. This means teacher self-disciplining, so that he talks less, listens more, and accepts his role as one of learner guide.

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39. The development of pre-vocational education literacy courses for use with computer-assisted instruction of disadvantaged youths and adults.

Florida State University, Tallahassee 32306. T.A. Smith. USOE support. 1967.

The major objective of this project was to develop computer-assisted courses in arithmetic and reading for disadvantaged adults and youths, requisite to entering vocational training. Lessons in counting, addition, and subtraction were written and tested, and lessons in division and multiplication started. A lesson includes a pre-test to determine if a student needs instruction, two instructional units of differing focus, and a post-test to evaluate the effects of instruction. In pilot tests the arithmetic lessons have been effective. Stepwise regression analysis of students' pre-test errors guided the organization within a topic of homogeneous lessons of increasing initial difficulty.

GEORGIA

Elementary

40. The role of selected visual and auditory characteristics in first-grade reading readiness. (NPR)

The University of Georgia, Athens 30601. Hazel D. Simpson. USOE support. 1967.

The purpose of this study is two-fold: (1) to develop an efficient battery of predictors, and (2) to obtain information which will be useful in developing a program of training to enhance readiness to read. The rationale behind this approach is that first it is necessary to determine how instruments available to school personnel may be useful in assessing readiness; concomitantly, identifying skills essential to reading readiness is necessary to defining the content of a training program. The sample will include seven classes of first-grade children (a total of 240) drawn from a population which meets the following requirements: (1) It must represent a cross-section of socio-economic backgrounds. (2) It must utilize the same basic reading series. The subjects will be described in terms of size of school, size of classes, nature of the community and other pertinent information.

41. Problem specification project in reading for children ages 3-12. (NPR)

University of Georgia, Athens 30601. Albert B. Callaway. USOE support. 1966-1967.

This project involves analysis of the literature on research, values, and judgements in the area of reading for children, ages 3 to 12. The investigation has two objectives: (1) the preparation of a summary of studies for guidance of the project director(s) in planning a study or studies to be proposed for support, and (2) the preparation of a more comprehensive, exhaustive or inclusive summary of studies in reading relevant to early stimulation of children ages 3 to 12.

HAWAII

Elementary

42. Hilo language development project. (NPR)

State Department of Education, Hilo. Robert O.H. Petersen, Harry C. Chuck. USOE support. 1965-1970.

The following points list the main features of the project: (1) teaching standard English as a second dialect, not as a replacement of previously learned language habits; (2) using the techniques of contrastive analysis in comparing the two systems; (3) developing pedagogically sound sequencing of the lessons; (4) writing lessons which may be used by groups or by individuals; (5) adhering to audio-lingual teaching techniques for second language learning. Two kinds of results are expected. Experimental results will indicate whether the project approach would be useful for schools in areas with dialect problems. The experience with the developmental aspect of the project will result in a document designed to explain how to go about developing a teaching program and lessons in other non-standard dialect areas. A speech rating scale useful in other non-standard dialect areas will be developed along with a sample set of lesson plans for the use of people developing a program in another area.

ILLINOIS

Elementary

43. The effect of free-time use of a START Teaching Machine on reading ability in the kindergarten. (NPR)

University of Illinois, Urbana. Carl Bereiter. USOE support. Final report - June 1967.

The main comparison in this study was between seven kindergarten classes in which a teaching machine was placed for free-time use and seven matching control classes which had no machines. The machine was of a type used in a previous study, which presented stories both auditorily and visually and which required the child to make occasional choices between printed words in order to keep the story going. On a recognition test consisting of words used in these choice-frames, every experimental class did better than its matched control class. The difference, using classes as the sampling unit, was significant at the .05 level.

44. Teaching reading to two- and three year olds. (NPR).

University of Illinois, Urbana. Carl Bereiter. USOE support. Final Report - June 1967.

Five two-year old children and five three-year old children of average to above average language aptitude participated in five months of reading activities. The two-year-olds engaged mainly in free play with a variety of teaching machines and other manipulative devices; the three-year olds engaged in teacher-directed group games designed to teach letter recognition, word recognition, and eventually some phonics. In both groups little visible learning occurred until an activity was introduced that amounted to conventional flash-card drill. Half of the subjects attained some stable sight vocabulary in this way, ranging from 10 to 50 words, and one child acquired some ability to decode novel words. Scores on the Illinois Test of Psycholinguistic Abilities indicated no relative gains in language-related abilities; but there was a significant interaction between treatment condition and changes in verbal versus non-verbal scores, children in the group games condition showing more favorable results on verbal tests while children in the teaching machine condition showed more favorable results on non-verbal tests.

45. Language resource information for teachers of the culturally deprived. (NPR)

Illinois Institute of Technology and The University of Chicago. Alva L. Davis, Ravin I. McDavid, William M. Austin. USOE support. July 1966-April 1968.

The materials which result from this project will give the teacher and curriculum planner a clearer understanding of the nature of regional standards of English and of regional sub-standards. It will demonstrate that the language a child uses is a part of his cultural heritage, and that the acquisition of a more prestigious dialect is similar to the acquisition of another language, requiring intensive pattern drill. The materials will therefore aid the teacher in dealing more effectively with the language problems of culturally different children. Although derived in large part from experience and research in the Chicago area, these materials should prove almost equally useful in other urban centers with large in-migration. They should be of value in teacher training workshops, in classes for teacher preparation, for in-service training and for other group study. Technical language is to be kept at a minimum so that an interested teacher could study them profitably without a formal background in linguistics. Teachers in adult education programs, especially those in literacy, would be aided by the materials because they would provide part of the necessary linguistics training. The reading problem is closely bound up with dialect differences, in that the speech of illiterates is not the language of written standard English and therefore the written language is not a graphemic representation of their speech. The result of this study will be a book for teachers only, and there will be a few tapes accompanying to illustrate phonological problems only. Completion is expected during the Spring of 1968.

46. Preparation of a program for teaching spelling and written composition.

Glenview Public Schools, 1215 Waukegan Road, Glenview, Illinois 60025.
Robert L. Hillerich. Local support. 1964-1968.

The effectiveness of a locally developed spelling program based on local and published research, has been tested against a commercial program. The former appears to develop significantly greater skill in the spelling of unstudied words in three-fifths the time normally devoted to the teaching of spelling. This program has become part of a structural English manual developed for classroom use during 1967-1968. The English manual, for grades 1-6, includes sections in phonology, syntax, study skills, composition, mechanics, and spelling. Emphasis in the development of this guide has been on influencing method more than content placement. All activities are designed to improve skill in written language, whether through application of understandings gained in the study of syntax or through specific teaching of revision and proofreading. Revision of the preliminary edition is planned for the summer of 1968.

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47. Hegeler Reading Study. (NPR)

Hegeler Foundation, LaSalle. Ann Hughes. Hegeler Foundation and local support. 1964-69.

This study includes six to fourteen first-grade classes in nine school systems. In eight of these systems, a comparison is being made between the Open Court Basic Readers and traditional basal readers. In the ninth, a separate comparison is being made between the Open Court series and the Economy series. The Open Court Readers include an intensive phonetic approach, a strong writing emphasis, and use of children's classics for content. The Open Court composition program and some aspects of the reading program were being developed and tried out during the first two years of the study (1964-5 and 1965-6), so that the year (1966-7) represents the first full use of the complete Open Court program for correlating the language arts. Each locality has three to seven Open Court first-grade classes this year and provides an equal number of control classes, similar in IQ and socio-economic status and teacher rating. All classes were tested in reading and spelling in the spring of 1967, with follow-up testing as they complete second and third grade. The Open Court approach correlates reading, writing, listening and speaking from the beginning of first grade so that all the language skills develop together and support each other.

48. Effectiveness of i.t.a. as a medium for reading instruction. (NPR)

University of Chicago, 5835 Kimbark Avenue, Chicago 60637. Helen M. Robinson. Local support. Sept. 1966-June 1970.

With methods of instruction and materials held constant, an attempt to evaluate i.t.a. as a medium is being undertaken. Eight schools of differing socio-economic levels have pairs of teachers with experimental and control classes. Teachers reversed positions and began new groups in 1967. Pupils will be compared through third grade.

49. Information gain and interest as a function of cloze difficulty. (NPR)

University of Chicago. John R. Bormuth. USOE support. Sept. 1967-Sept. 1968

When written verbal instructional materials are too difficult students commonly gain little information from reading them and the students will not willingly study them. Conversely, while materials written in very easy language generally enable the student to exhibit a high rate of gain of information, students generally reject the study of such materials on the grounds that they are insipid and dull. The purpose of this study is to determine the range of difficulty through which students exhibit both a high level of information gain and interest. This study utilizes 48 short passages of verbal written text. These passages represent twelve levels of difficulty, having four passages at each of the twelve levels. Cloze and conventional comprehension tests will be made over each passage. The subjects will then be given a test over each of the 48 passages. They will take cloze tests over two of the passages at each difficulty level. Over the remaining two passages at a difficulty level, they will be given an information gains score which will be obtained by administering a conventional test before they have read the passage, allowing a one-week delay, having them read the passage and take the same test again, and then subtracting their scores on the first testing from their scores on the second testing. The

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subjects' information gain and interest scores will be averaged for each level of difficulty and plotted against the average cloze score obtained at that level of difficulty. These curves will then be averaged across subjects in order to determine the range of difficulty through which information gain and interest are at a maximum.

Secondary and College

50. An evaluation of oral interpretation as a part of the professional preparation of secondary school teachers of English. (NPR)

Monmouth College, Monmouth, Illinois 61462. Thomas L. Fernandez. USOE support. April 1967-June 1967.

This study was designed to ascertain whether or not the development of skills in oral interpretation is a valid objective in the preparation of secondary school teachers of English. A questionnaire was designed to serve as the basic instrument of the study. Responses were solicited from college professors of speech and English, as well as from secondary teachers of English. It may be concluded from the responses to the survey that oral interpretation is a subject of interest and concern to those who teach English at the secondary level, and that it is an instrument used almost daily in teaching. Moreover, the secondary school teacher of English in Illinois, as represented by the sample group, supports the hypothesis that developing skills in reading aloud should be an objective of programs designed to prepare secondary teachers of English. The study reveals that preparation which develops skill in oral interpretation is considered to be an asset in teaching English and, concomitantly, that the lack of preparation in oral interpretation is considered to pose some liability in teaching English effectively at the secondary level.

51. A study of the possible distinction between "controlling eye" and "dominant eye" and the effect of both, with hand dominance, on reading achievement. (NPR)

Glenview Public Schools, 1215 Waukegan Road, Glenview, Illinois 60025.
Robert L. Hillerich, Robert W. Boos. USOE support. Feb. 1967-Nov. 1967.

This longitudinal study was a replication of two disparate studies, one of dominance and one of control, which has as subjects 277 seventh and eighth grade pupils remaining from an original dominance study of over five hundred. Eye dominance was determined through hole-in-paper and V-scope; eye control at near and far point, through the telebinocular; hand dominance, through tapping connecting dots, and a variety of performed acts; reading achievement, through the California Achievement Test; and reading differential, through a formula utilizing I.Q.'s from the California Test of Mental Maturity. While controlling eye and dominant eye were found to be unrelated to each other, no significant difference was observed in reading achievement or reading differential regardless of the dominance or control characteristics of the subjects. A strong tendency was observed for subjects to exhibit more mixed dominance at eighth-grade than they had at grade two. Finally, observing no significant difference in dominance patterns of male as compared with female subjects, the authors concluded that neither dominance nor control was a significant factor in the reading achievement of the subjects studied.

ILLINOIS

52. Northern Illinois University Curriculum Development Center.

Northern Illinois University, DeKalb. Andrew MacLeish, William R. Seat, Jr. USOE support. June 1964-Sept. 1967.

Goals: (1) to train 15 selected 12th grade teachers in phonology, morphology and syntax (transformational) and to assist them in developing classroom materials related to composition, (2) to produce classroom-tested units in linguistics which will be interesting in themselves and which will enable investigators to determine whether there is any relevant connection between linguistics and composition. At last report 300 pages of lesson materials in phonology, morphology and history of the language had been produced and tested in the classroom. The 40 most-frequent transformations in 12th grade themes were identified and a grammar was constructed based on them. Classroom lessons in phrase-structure and transformations are being written. It is expected that there will be about 40-50 lessons describing the transformations in compositions, and that a final statement will be made about the efficacy of and necessity for teaching these in the composition course.

53. The Effingham Program for the improvement of pre-college English.

Effingham High School, 600 South Henrietta, Effingham. Bertrand F. Richards, Duane R. Neet. Effingham Community Unit District #40 support. Sept. 1967-June 1969.

Objectives: (1) to develop a curriculum in English for pre-college high school seniors utilizing an inductive or discovery method of teaching; (2) to follow up student achievement in college rhetoric courses to determine the efficacy of this inductive-discovery method of instruction in English as compared to the traditional method. The evaluation of the project has two separate phases: (1) an objective and a subjective comparison of materials devised for the preliminary phase of the program and materials currently in use; and (2) a determination of the success of the teaching done in the experimental classes. In this second phase the following procedures are pertinent: (a) a comparison of college English composition grades of EHS graduates prior to and following inauguration of the program; (b) a comparison of the achievement of project students with national norms; (c) an analysis of the results of a questionnaire sent to college students (EHS graduates) on their preparedness for college English; (d) an analysis of the results of a questionnaire sent to college English instructors of EHS graduates on the preparation of these students; (e) the results of structured interviews with instructors of EHS graduates at the three universities drawing largest enrollments from Effingham High School (Illinois, Southern, and Eastern).

INDIANA

Elementary

54. Programmed tutoring of elementary reading. (NPR)

Indiana University, Bloomington. D.G. Ellson. Ford Foundation, NIH support. 1960 - .

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The purpose of this study is to develop techniques which will: (1) improve the quality and speed of teaching (or learning) of reading; (2) be adapted to practical use in working schools; and (3) provide a control over teaching conditions and a precision of recording sufficient for research on details of the teaching-learning processes involved. The results obtained so far include evidence that: (1) when used as a supplement to classroom teaching, programmed tutoring can improve the quality of teaching, as indicated by reading achievement test scores and by success in teaching children who appear to be unable to learn in the classroom group; (2) with detailed programming of their teaching behavior, non-professional tutors can teach with results comparable to those of professional teachers; (3) the combination of programmed tutoring and classroom teaching is more effective than either alone. Daily alternation is more effective than less frequent alternation of the two techniques. One analytical experimental study indicated that under the learning conditions exemplified by programmed tutoring, the rate of learning is positively and linearly related to the amount of new materials presented and to the number of errors made. Future research of the project can be expected to take three directions: (1) further development and refinement of the practical technique of programmed tutoring; (2) extension of applications of the technique to subject matter other than reading, e.g., arithmetic, second-language learning; and (3) an increase in analytic studies of the processes involved in learning to apply the rules of grapheme-phoneme relationships in reading.

55. A study comparing levels of linguistic maturity as indicated in the speech and writing of students in classes using the initial teaching alphabet (ITA) and students using traditional orthography in grade one. (NPR)

West LaFayette Community School Corp., West LaFayette, Indiana 47906. Bernarr Paul Folta, Carmen P. Fabian, William Floyd. USOE support. June 1967-September 1967.

The objectives of this study are to determine whether a group of students in classes using the Initial Teaching Alphabet writes and speaks more linguistically mature sentences than a group of students in classes using Traditional Orthography, and to compare levels of linguistic maturity between the speech and writing responses within each group. Investigators will utilize written assignments and taped oral responses from three I.T.A. classes and three T.O. classes for the purpose of linguistic analysis. Dr. Kellogg Hunt's T-unit length will be a significant index used to determine levels of linguistic maturity. Syntax, not the amount of writing, will be the object of this investigation. It is hoped that this research can significantly contribute to education in three ways: (1) in determining whether or not the students using the I.T.A. have a significant advantage in writing and speaking more linguistically mature sentences; (2) in adding to the research on syntax already completed by Hunt, O'Donnell, Griffin, and Norris; (3) in allowing for a base study for continued research on the subjects in the event that the findings encouraged a follow-up study.

56. The effect of a summer television reading program on the reading achievement of children. (NPR)

Evansville-Vanderburgh School Corporation, 200 N.W. Seventh Street, Evansville, Indiana 47708. Jack W. Humphrey. USOE support. January 1965-January 1967.

INDIANA

The purpose of the study was to determine if there was a loss in reading ability by children during the summer following their first-grade work and to develop a program for use on television to help prevent summer loss in reading ability. A total of approximately 2,500 children were in a control group during the first summer when no program was presented. An equal number of children, all first-grade pupils in Evansville, were in the television group during the next summer. The children saw 40 one-half hour programs in their homes and worked in an activity book which was developed for the program. The program resulted in a significant gain for the television group for both boys and girls. There was a significant increase in the circulation of first-grade level library books during the summer. Television can be utilized at a relatively small cost to prevent loss in reading during the summer following the first-grade. The program has become a permanent part of the Evansville area reading program and is used by children in a 35 county area in Indiana, Kentucky, and Illinois.

Secondary

57. Prospective teacher fellowship program. (NPR)

Ball State University, Muncie, Indiana 47306. Betty W. Robinett. USOE support. 1967-1969.

The Prospective Teacher Fellowship Program in English is for secondary school teachers who have never taught or who have not taught for several years. The program leads to a Master of Arts in English and entails 45 quarter hours of graduate work. Stipulation is made for the completion of certification requirements if the fellow has not already done so. The purpose of the project is to provide facilities for a select group of students to obtain a Master of Arts Degree in English and professional (permanent) certification in English. The core of the program includes courses in the new approaches to English grammar, literacy, criticism, and composition. The remainder of the program is devoted to the study of British and American literature.

IOWA

Elementary

58. Preventive measures to reduce reading retardation in the primary grades.

Cedar Rapids Public Schools and State University of Iowa. Hale C. Reid, Louise Beltramo, Sieg Muehl, Anabel Newman, Billie Paar. USOE support. July 1966-October 1967.

Objectives: To investigate the effectiveness of specialized reading instruction and in-service education as a supplement to classroom instruction for second grade low-reading groups. Procedure: The population will consist of second grade children in the Cedar Rapids Public Schools (1) who have been qualified as slow readers as determined by a cumulative score on the beginning of the year reading achievement test and (2) whose Lorge Thorndike is 85 or above. Of this number only those children in classrooms that contain a minimum of six and a maximum of ten slow readers will participate. In addition, two groups that are

IOWA

above the cut-off score will be identified for purposes of subsequent comparisons; those children who were in the previous reading research project and those who were not. Three major methods groups will be established with ten classrooms using each method. One group will be the Basal Reader group (BR), another the Basal Reading In-Service Group (SBRIT), which will be divided into two subgroups: SBRIT-1 children within each classroom according to the following criterion: approximately the same age, IQ and degree of reading retardation. The SBRIT-2 children will share the same program and teacher as the SBRIT-1 children. In addition, the SBRIT-2 children will receive approximately 30 minutes per day of individual and small group (2-3 children) reading instruction outside the classroom. Two trained remedial teachers will carry out this aspect of the instructional program, each serving approximately 20-25 pupils. Beginning and end-of-year score comparisons will be made between the reading achievement scores of the two major methods groups (BR and BRIT) and SBRIT and the two groups that were above the cut-off point on the September test using analysis of variance.

KANSAS

Elementary through Secondary

59. Relationships between perception and reading.

University of Kansas, Lawrence. John R. Bergan. USOE support. Sept. 1965 - July 1967.

A systematic approach to the definition of perception will be designed. The general hypothesis that accuracy in perception is positively correlated with reading performance will be examined in this study of the relationship between perception and reading. The investigation at three different age levels (7, 9, and 11) of the relationships between perception (i.e., size constancy, shape constancy, spatial orientation and speed of processing information) and reading achievement as assessed by the comprehension section of the California Reading Test and the Gates Diagnostic Reading Test will include 80 elementary school children, 40 boys and 40 girls from the age levels previously mentioned. Testing will be carried out in the spring of two successive school years. The 7 year olds being tested on all measures the first year, the 9 and 11 year olds the second year. The California Test will be administered individually.

KENTUCKY

Elementary through Adult Education

60. Development of an expanded reading code for the blind. (NPR)

University of Louisville, Emerson Foulke. USOE support. Sept. 1967 - July 1970.

The braille code contains 63 characters. The object of the research proposed in this application is to develop an enlarged set of characters, of known and high discriminability, using an expanded matrix. The elements in this stimulus

KENTUCKY

alphabet will be paired with the elements in one or more response alphabets, such as a braille type alphabet with a greatly expanded list of contractions, the elements in a language syllabary, or the elements required to communicate concepts in technical fields such as mathematics, chemistry, and computer science.

61. Reading and listening in learning by the blind.

American Printing House for the Blind, P.O. Box 6085, 1839 Frankfort Avenue, Louisville. Carson Y. Nolan. Public Health Service support. 1963-1967.

This year was the last year for a four-year project funded by the Public Health Service for study in this area. One major study consisting of six substudies was completed. The study was entitled, "Active and Passive Listening under Conditions of Normal and Compressed Speech Rates." Six studies employing identical designs comprised this phase of the project. Three studies used subjects from grades 4-7, and three used subjects from grades 9-12. Learning of three different subject areas (literature, social studies, and science) was tested at each grade level. One hundred twenty students in each study were equally divided among three modes of listening: (1) continuous listening; (2) listening interrupted for 45-second periods at four evenly spaced intervals during which the subject was instructed to mentally review what he had just heard; and (3) listening interrupted for four-minute periods at four equally spaced intervals during which the subject made notes of what he had just heard, using a braillewriter provided for the purpose. Generally, the findings of the studies were the following: (1) students who actively participated in the listening process through periodic mental review or note taking made higher comprehension scores than those who took only a passive part, (2) students listening at normal rates uniformly comprehended more than those listening to material which had been speeded to a moderate degree. In all previous research, comprehension at these comparative levels has been equal.

MAINE

Elementary

62. Selected reading readiness tests as predictors of success in reading.

University of Maine, Orono. Robert E. Lowell. HEW support. Sept. 1966-July 1967.

Selected readiness tests will be evaluated with respect to their predictive relationship to beginning reading achievement. The test battery will include, (1) "Murphy-Durrell Reading Readiness Analysis" - 1965 revision, (2) "Murphy-Durrell Diagnostic Reading Readiness Test" - 1949 edition, (3) "Lee-Clark Reading Readiness Test" - 1962 revision, and (4) "Tests of General Ability, K-2" - 1960 revision. Reading achievement will be measured at the end of (1) pre-primer program, and (2) the full school year. The relationship between readiness and achievement will be determined by multiple regression analysis, and effects of methods of instruction will be assessed by factorial analysis of covariance. In addition, a factor analysis of the readiness tests will reveal the number and kind of factors measured by the tests.

MARYLAND

Elementary through Secondary

63. Language Curriculum Project, Grade K-12. (NPR)

Baltimore County Board of Education, Towson, Maryland 21204. Jean C. Sisk.
Local funds. 1965-1973.

The Language Curriculum Project was initiated in the Baltimore County System in 1963, at which time the secondary school English curriculum committees investigated the newer subject matter and attitudes in language study such as the history of English, semantics, dialect concepts, usage, various "grammars," functions and uses of language. At this time the decision was made to change the emphases in the secondary school program to make the language component of the English program more comprehensive and up-to-date. A Language Guide K-12 was written by an all-level English committee; it set up the basic concepts to be taught throughout the system and outlined the kind of grammar and usage activities and attitudes that would be adopted. Since that time, this guide has served as the basis of more specific guides for elementary and secondary school. The project is significant as an attempt to put into actual practice, in a large school system, some of the research and changing attitudes toward the study of English that have been emerging over the past few decades. It is significant in its attempt to have teachers write their own materials, either where none exist yet or where those that do are not satisfactory for our objectives. It is also significant in its K-12 structure, all levels involved, though at different rates (depending upon in-service components and teacher-readiness) and in differing emphases within the program itself. At present, all secondary schools are involved to a very comprehensive degree and elementary schools are getting past the first experimental stage into the broadening of program to entire faculties within our thirteen experimental elementary schools.

Elementary

A. Language-experience approach to reading. (NPR)

Clotilde C. Drechsler. No formal support. 9 years duration.

The Language-Experience Approach to reading uses the language experiences of the children in particular classrooms to develop the goals common to all reading programs. The LEA represents an integration of many methods of teaching reading. There is a strong emphasis placed upon the interrelationships of all the language arts. From the beginning the child is encouraged to express his thoughts and ideas. Through dictation to the teacher and the independent writing of the pupils, reading materials are produced and used to teach sight vocabulary, phonic skills and comprehension skills. When the child learns to read his own language written down, he is ready to read the language that others have written down. The Language-Experience Approach gives the child the opportunity to deal with topics and materials which are significant to him. It also gives him the freedom to progress as fast as he is competent to do so.

B. The linguistic approach to teaching reading. (NPR)

Clotilde C. Drechsler. No formal support. 1968-1970.

The linguistic approach to teaching of reading reflects the philosophy of the structural linguists and is a code-emphasis program. The vocabulary control rests

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on the basis of word patterns and the mastery of word forms is achieved through a system of minimum contrasts. The reading exercises give practice with the word patterns and the early practice in writing reinforces the child's grasp of them.

C. Multi-sensory approach to reading. (NPR)

Gene Hastings. No formal support. 1968-1972.

This project was developed around the hypothesis that many of the children were lacking in motor sensory skills as well as visual perception skills. The present investigation has as its objectives: (1) to provide language development through an experience approach to initial reading; (2) to provide for language development through children's literature; (3) to provide for perceptual development through a multi-sensory approach; (4) to provide a learning environment for six-year-old boys that is free from peer pressure of six-year-old girls; and (5) to provide worthwhile learning activities to replace meaningless seatwork.

64. Comparison of the use of the active game learning medium with traditional procedures in the reinforcement of reading skills with fourth-grade children. (NPR)

University of Maryland, College Park 20740. James H. Humphrey. University of Maryland support. 1967 - .

The purpose of this project was to determine how well certain reading skills could be reinforced by the active game learning medium at the fourth-grade level as compared with the traditional ways of reinforcing these skills. 30 fourth-grade children were used as subjects. On the basis of a pre-test of eight reading skills subjects were equated on a matched pair basis into two groups of 15. Each reading skill was introduced and presented verbally to both of the groups together. The groups were then separated and with one group skills were reinforced through active game medium and with the other group through traditional procedures. Comparison of the pre- and post-test scores were evaluated by using the standard error of the mean difference and the t ratio. There was significant gain from pre- to post-test in favor of the active game group (t equals 4.1907; df equals 14; p equals .001).

65. Early identification of problem readers.

Reading Center, University of Maryland, College Park 20742. Robert M. Wilson. Support: ?. 1967 - .

This project will assist first-grade teachers to: (1) effectively identify children who have symptoms of potential failure in reading; (2) adjust instructional program based on the best information available; and (3) evaluate children at the end of the year. Children are checked through testing by the Peabody Picture Vocabulary Test, the Wepman Test of Auditory Discrimination, and the Frostig Test of Visual Perception. Program adjustments were made based on the results of these tests under University personnel advisement.

66. Improving the reading and writing skills of culturally disadvantaged college freshmen.

Department of English, Morgan State College, Baltimore 21212. Nick Aaron Ford USOE support. 1967 - .

MARYLAND

This investigation will determine: (1) whether specifically selected reading materials and experiences and specially devised methodology will motivate culturally disadvantaged college students to improve their reading and writing skills more thoroughly than will the normal experiences of a typical freshman English course, and (2) whether such students because of such improvement in their reading and writing skills will achieve at a higher level in their other academic subjects. Two experimental sections of freshman English will be selected, numbering 20 students each. The control group, consisting of an equal number of entering freshmen with comparable scores from diagnostic tests, will be scattered randomly through various sections of the freshman English curriculum and taught by nonselected teachers. Neither the control nor the experimental groups will know of their involvement in the study. Text materials and methodology will be developed during a first stage pilot project conducted the first project year. In the second stage, consisting of 27 months, this developed data will be implemented into the experimental group's program. A common set of evaluative criteria will be applied for both groups to ascertain amounts of progress made toward achieving competency in writing skills and reading skills, and overall achievement in other academic subjects.

MASSACHUSETTS

Elementary

67. An experimental study of the influence of individual vs. group instruction on spatial abilities in pre-school children. (NPR)

Boston College, Chestnut Hill 02167. Sister Josephina Concannon. USOE support. Sept. 1965-Sept. 1966.

The impact of two treatments of learning experiences on the abilities of pre-school children were studied. The learning experiences involved principles of haptic (tactual) perception in the performance of various tasks. Children, ages 3 through 5, from high and low economic levels were selected as subjects. An analysis was made of their haptic perception abilities when given instruction, either individually or in a group. They were pre- and post-tested in five areas of haptic ability. The data were analyzed by statistical methods. The results indicated a number of identifiable and measureable variables which play an important part in the child's performance. However, the instruction treatments did not differ significantly.

68. Development and validation of wide-range, flexible, self-instructional reading programs. (NPR)

Harvard University, Cambridge. Douglas Porter, Helen Popp. Ford Foundation support. Oct. 1965-Oct. 1968.

The major objective of the research is to develop a set of self-instructional reading programs. Sequences have been developed at the pre-reading level and an attempt will be made to take individuals to the point of "independent" reading. Visual discrimination skills, pre-phonic tasks, phonic instruction (grapheme-phoneme correspondences in the context of words), and teaching of sight vocabulary are all incorporated into the beginning of the program. An analysis of children's literature is also underway to establish a readability measure appropriate to published children's literature and will be validated on children's reading of a selected set of books. There will be deliberate application of behavioral technology to a specific job, and detailed behavioral analyses will be made of various aspects of reading performance. Initial program segments will be developed and tested on suitable subjects. A final program of many segments will be built up through a series of successive approximations in which success of the later sections will rest upon perfection of prior sections.

Secondary

69. Transformational sentence-combining: a method for enhancing the development of syntactic fluency in English composition. (NPR)

Harvard University, Cambridge. John C. Mellon. USOE support. 1967.

This study reports an experiment on the hypothesis that grammar-related sentence-combining practice will meaningfully enhance the normal growth of syntactic fluency, that is, the typical rate at which the sentence structure of student writing becomes more elaborated and diversified. Traditional studies on error therapy and sentence structure are reviewed, and the conclusion is advanced that preoccupation with the former has reduced the effectiveness of treatments on the latter. The principal assumption underlying the hypothesis is that normal growth of syntactic fluency may be enhanced by special treatment artificially enriching the student's language experience. As methods for enhancing growth of syntactic fluency, the following are examined and rejected: (1) rule learning; (2) pattern practice; (3) modeled writing; and (4) traditional parsing. A novel alternative method is advanced which presents students with sets of kernal-like statements which are then collapsed into single, fully-formed complex sentences in such a way that the student experiences the pseudo-production of these sentences in a specially intensive manner. This practice, named transformational sentence-combining, was given as a problem-solving activity comprising one part of the student's work in linguistics. Its effects were measured in samples of approximately 90 T-units of uncoached student writing. The sample used in the experiment consisted of 247 seventh-grade students assigned to three treatment groups--transformational sentence-combining, conventional parsing, and no grammar. Subjects were equally divided between boys and girls, and represented five general ability levels drawn from urban, suburban, and private schools. Inter-group equivalences were observed at all levels on the STEP Writing Test as well as on tests of intelligence and reading. Pre-post writing was in response to nine pairs of parallel topics, with subjects receiving one half of each pair in the fall of grade seven and the other half in the spring. Writing was segmented into T-units and analysed according to twelve factors of syntactic fluency pertaining mainly to nominal and relative embeddings, frequency and depth of embedding, and clustered modification. Results are presented which indicate that the experimental subjects experienced more than the one additional year of extra growth hypothesized for them and that their post-test syntactic fluency was significantly greater than that of the control (conventional grammar) subjects. A placebo comparison relating the no-grammar groups to the other groups favored the experimental group and found the control and placebo groups mutually indistinguishable. Further analysis indicated that the treatment was as effective for boys as for girls and for urban students as for suburbans. A sub-sample check of overall quality showed no undesirable effects stemming from the sentence-combining practice.

MICHIGAN

Elementary

70. A study of children's behavior while reading orally. (NPR)

Wayne State University, Detroit. Kenneth S. Goodman. USOE support. Sept. 1965-March 1968.

This study should be regarded as part of a larger effort to describe the reading process and develop a theory of that process. The central device used is the study of the miscues (unexpected responses) of children reading unfamiliar material. These unexpected responses are compared with the expected responses; our assumption is that differences are not accidental or random but are generated in the reading process itself. The study has categorized the reading miscues (about 1200) of 12 fourth and fifth grade children, reading the same sixth grade story, according to a previously developed taxonomy. The researchers asked 28 questions, covering the psycholinguistic categories of the taxonomy, about each miscue. The major outcomes of this study appear to be the following: (1) The basic research approach and the assumptions on which it is based have been supported. The investigators can categorize reading miscues according to the linguistic and psycholinguistic phenomena they represent. (2) The depth description of the reading skills, strategies, and techniques of each subject is in itself a useful product. It appears that a very powerful diagnostic test and/or informal reading inventory could be based on this analysis. (3) The researchers have confirmed the inter-play of syntactic, semantic, and graphophonic information in the reading process of these subjects. Particularly, the study has demonstrated the extent that syntactic information is used by readers. (4) The study has confirmed and demonstrated the great importance of the self-correction of miscues by readers. The learning that takes place through correction is also of great importance. (5) The study appears to support a model of reading which makes it parallel to listening. Several of the subjects did not seem to go through oral language in reading. They seemed to be decoding directly from print in many instances. In fact, at the level of proficiency the investigators found some of the pupils, their oral reading was clumsy. These subjects appeared to be disturbed by having to encode orally. (6) The study provided the researchers with a basis of comparison with other groups of readers. (7) The study has confirmed that the phenomena observable in a study of the total language situation yield far more insights than phenomena observable in studies where language aspects are extracted from the language process. Some tentative conclusions are: (1) Children should be encouraged to detect and correct their own miscues. Teachers should avoid prompting and correcting. (2) Skills should be taught in direct relation to the reading of whole language rather than in skill drills. (3) Children should be assisted in developing strategies for using grammatical and semantic cues as well as phonic cues in reading. (4) Material children read must be "decodable" language to them. It must, in other words, make sense.

71. A follow-up study of psycholinguistic description of oral reading phenomena of individual children during their early years in school.

University of Michigan, 4901 Evergreen Road, Dearborn. Yetta M. Goodman. No formal support. Sept. 1967 - .

The main goal of the research is to provide longitudinal data on how children learn to read. This is a follow-up study done on beginning readers. Six readers are asked to read orally at regular intervals during the year. The errors the

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subjects make are analyzed according to a linguistic taxonomy of miscues described in terms of phonological, syntactic and semantic aspects. This taxonomy was developed by Kenneth S. Goodman (see previous abstract). It is believed that this research should help formulate a concept of reading as a developmental process, for research, enlightenment of teachers, and development of materials and diagnostic instruments.

72. Basic reading demonstration project.

10100 Grand River, Detroit. Mark Mahar. USOE support. Nov. 1965-Aug. 1968.

The three goals of this research project are: (1) to teach the subjects to become effective readers; (2) to validly test the six different medium/methods for teaching inner-city beginning readers; and (3) to investigate and measure the quality and quantity of instructional service offered by a select group of para-professionals working under the direct supervision and guidance of a certified, classroom teacher.

73. Criteria for selecting materials to teach reading. (NPR)

Wayne State University, Detroit. Hans C. Olsen. USOE support. 1967.

Before selecting materials to teach reading, a set of consistent and appropriate criteria must be devised and used to objectively analyze available materials. A knowledge of the children, teachers, and objectives and pattern of the reading program in the school system aids the determination of the criteria. Judgment must then be used in selection because materials will rarely fit all the chosen criteria, and priority must be given to some of them. There are little known criteria which should be considered: (1) a provision for controlling grapheme-phoneme correspondence; (2) recognition of dialect differences; and (3) an attempt to stimulate children to read widely outside of school. Contradictory criteria which should be avoided include: (1) gaining meaning versus learning grapheme-phoneme relationship, and (2) controlled vocabulary versus literary quality.

74. Communication Skills Project. (NPR)

916 Schools Center, 5057 Woodward Avenue, Detroit. Dominic Thomas. USOE support. 1968.

The Communications Skills Project has four facets of organization. The first is the operation of six Communication Skills Centers. At these Centers children with severe reading disabilities are given concentrated instruction in remedial reading. The second aspect of the project is the maintenance of twenty Communication Skills Rooms where remedial reading teachers provide instruction for students in designated schools. A third part of the Communication Skills Project is the Language Retardation Unit which exposes pre-school children who are retarded in language development to a daily program of intensive language therapy using special materials, and trained speech therapists. A final phase of the project is the Reading Development Center, which includes a reading diagnostic clinic, a materials development center, and individual remedial reading instruction for selected students.

MICHIGAN

75. Appraisal of the city schools reading program.

Language Education Department, Detroit Public Schools. Gertrude Whipple. Local support, Follett Publishing Co. support. 1962-1968.

This program is characterized by: (1) representation in reading stories of various types of people in multi-cultural neighborhoods; (2) use of natural, familiar speech patterns of the culturally-disadvantaged children. The effects of the reading materials upon children of different home backgrounds were studied. After each series, two tests were given -- one in word recognition, the other in oral reading. Test results indicated that the City School Series is successful in teaching both, and six additional books have been included in the series.

Secondary

76. ...Of Cabbages and Kings.

Department of Educational Broadcasting, Detroit Public Schools, 9345 Lawton, Detroit 48206. Ethel Tincher. USOE support. Sept. 1966-Sept. 1968.

Under the Cultural Enrichment Project, a one-semester junior-high literature series was televised beginning in September, 1966. Composed of thirty-six programs, each in twenty-five minute segments, the series is structured under such units as humor, folklore, self-image, adventure, biography, family, poetry, mystery, frontier, drama, imagination and reality, and teen renaissance. Each of these units is designed to focus on the basic humanistic theme of self-identification. Within this context, the aims are to enable students to develop a social conscience and a cultural awareness of themselves and others as they become actively involved mentally, physically, and emotionally through contact with appropriate literature within the scope of their understanding.

Elementary through Secondary

77. Title III ESEA Exemplary programs in language arts. (NPR)

Oakland County Schools, Campus Drive, County Service Center, Pontiac 48053. Enora Higginbottom, Philip Hilaire. USOE support. June 1966-June 1969.

This language arts project consists of three models: POWER (creative writing on the elementary and secondary level); REAP (self-selection paperback reading for grades 7-12); ORBIT (reading improvement for low achievers of average intelligence, grades 3-12). After an 8-week full time instructional period, program teachers set up model classrooms with selected groups of students. The first year involved the training period, and 18 of the programs became operational for four months. The second year was devoted to making the programs exemplary in many ways, through in-service training of Program Teachers, orientation of other teaching staff involved with the model classrooms in each district, and sharing research and ideas among all the teachers. The third year will see a phasing-out of the county's supervision, and assumption of programs by the districts.

MICHIGAN

78. Perceptual competence and the tagmemic heuristic model. (NPR)

Center for Research on Language and Language Behavior, University of Michigan, Ann Arbor. Kenneth Pike, Richard Young. USOE support. 1967-1968.

Human beings have an extraordinary capacity to shift perspective on physical or conceptual units, and it is upon this capacity that heuristic inquiry depends. The tagmemic heuristic model has attempted to exploit the full range of these perspectives. Previous formulations of the model have been effective in practice but have contained theoretical difficulties, most notably a failure to clearly explain the relationships among the parts of the model. A nine-all matrix with particle, wave and field as one dimension and feature, manifestation and distribution as the other, with each cell being filled by a set of operations defining a unique perspective, appears to resolve the difficulties while increasing ease of application. The model is capable of describing the various, shifting perspectives taken by writers in both poetry and prose. It can also be used to stimulate original inquiry. In rhetoric in particular, it has been used for systematic problem-solving at the earliest stage of composition, for audience analysis, and finally for the generation of discourse in a way analogous to that of the Aristotelian Topics. Its completeness and generality make it useful at all stages in the process of composition, thus offering a more powerful and economical procedure than has hitherto been available in rhetoric.

79. Notion of generation in rhetorical studies. (NPR)

Center for Research on Language and Language Behavior, University of Michigan, Ann Arbor. Richard Young. USOE support. 1967-1968.

The notion of "generation" has been the focus of considerable interest and considerable confusion in recent rhetorical studies. A careful examination of the meanings of the term reveals important trends in modern rhetoric. As now used it refers to either of two quite different procedures: (1) the deductive analytical procedure of transformation grammar, or (2) any of a number of heuristic procedures for solving rhetorical problems. Transformational grammar is currently being exploited in several ways, most notably in stylistic analysis. Of more importance has been the growing interst in systematic problem-solving techniques. A number of heuristic procedures have been developed to supplement or supersede traditional ones. Among these is the tagmemic procedure, which, because of its completeness and range of application, offers advantages over most of the present methods. The procedure grows out of discovery techniques developed in tagmemic linguistics. Its uses are being extended into literary criticism and rhetoric by Kenneth Pike, Richard Young, and Alton Becker, who are simultaneously developing the theoretical model and applying it in classes in literature and composition.

MINNESOTA

Elementary

80. Visual-linguistic reading program. (NPR)

University of Minnesota, St. Paul 55101. James I. Brown. No formal support. 1966-1969.

MINNESOTA

The project attempts to discover the results of combining strong visual elements with linguistic structuring to see what effect such a combination has on the teaching of reading at the first grade level. As for rationale, the project is built around four major convictions. A strong reading program should; (1) minimize the initial difficulties in learning to read; (2) control the early formation of desired reading and word -- attack habits; (3) meet a wide range of individual differences; (4) heighten the teacher's effectiveness and position.

81. Coordinating Center for first-grade reading research programs.

University of Minnesota, Minneapolis. Robert Dykstra. USOE support. Nov. 1964-Dec. 1966.

It is proposed to establish a coordinating Center to provide services for 27 projects which are investigating first-grade reading instruction. Some of the Center's objectives were: (1) to provide a staff of consultants to be ready to offer their services, as needed; (2) to make available at a nominal fee the facilities of the Numerical Data Processing Center to the individual project directors who had no such services at their disposal; (3) to visit the individual projects in order to consult with the project directors and to become acquainted with the unique characteristics of each project for realistic data interpretation; (4) to assemble analyze, and interpret the data which the individual project directors had made available; and (5) to write a final report which would describe the statistical analyses of the combined data, report the results, draw conclusions, indicate implications for classroom practices and make suggestions for further studies.

82. Word associations and learning to read. (NPR)

University of Minnesota, Minneapolis. S. Jay Samuels. USOE support. 1965-1967.

The purpose of the study was to determine the effect of associative strength between words on learning to read. It was found that reading acquisition was facilitated as much by word-pairs having low strength associative connections as by word pairs having high strength associative connections. Furthermore, reading acquisition was facilitated with all treatments having some degree of associative strength between word-pairs compared to the control treatment which had zero degree associative strength. The results imply that writers of children's readers should give attention to associative connections between words in deciding the sequence of words to use in the reader. Teachers should introduce new words which children will encounter in their reader in the exact sequence which the word appears in the reader.

Elementary through Secondary

83. Development of readability formulas.

University of Minnesota, Minneapolis. John R. Bormuth. USOE support. 1965-1968.

The object of this study is to determine what features of language are most closely associated with the difficulty people have in understanding the information transmitted by that language and to use measures of these language features to calculate equations with which to predict language difficulty.

MINNESOTA

The linguistic variables include measures of word length, cultural frequency, morphological complexity, etc. and measures of syntactic complexity based on counts of different types of transformations (and the number of operations they involve), Yngve's word depth and variations on it, and measures of length of syntactic units. The dependent variable is scores on cloze tests. A total of 330 passages of 100 words each drawn from instructional materials in ten subject matter areas constitute the language sample. Students in grades 4 through 16 constitute the population of subjects.

84. Center for Curriculum Development in English (Project English). (NPR)

University of Minnesota, Minneapolis. Stanley B. Kegler, Donald K. Smith. Harold B. Allen. USOE-Cooperative Research Division support. 1962-1968.

The expected end-products of this research project are as follows: (1) establishment of a Curriculum Study Center in English demonstrating that scholars from a variety of academic disciplines and pedagogy can effectively function as a working team in the development of curricular materials; (2) curriculum materials and study guides in information and concepts about the English language, useful in grades 7 through 12; (3) tests of linguistic sophistication based on the information categorized and measures of language attitudes; (4) explanatory brochures for use by teachers of elementary school and college students, of language other than English, and by curriculum study groups; (5) development of graduate offerings through appropriate workshops and institutes with the additional effect of development of a well-informed group of experienced teachers well-grounded in techniques of instruction about language; (6) reports, through articles in professional journals, and possibly a separate publication; (7) reports through speeches to be given at professional meetings by key Center personnel; and (8) development of potential graduate dissertations for the M.A. and Ph.D. to be developed concurrently by participants in the Center and by teachers cooperating with various aspects of the work of the Center. A variety of teaching units are in varying stages of preparation in the Center; most are in final revisal form, but several, including a unit dealing with kinesics, paralanguage, and proxemics, are in earlier stages of development. All of the completed units have undergone extensive revision to introduce generative grammar to junior high school students. The investigators feel that the attempt to categorize information and concepts about language from a wide variety of disciplines is necessary if a broad perspective about language study is to be executed as a course of study.

MISSOURI

Elementary

85. Teaching beginning readers to distinguish between similar letters of the alphabet.

University of Missouri, Columbia. R.J. Karraker. HEW support. Oct. 1966-Sept. 1967.

A general approach to teaching children how to discriminate between similar letters of the alphabet will be studied. Students will be required to respond

MISSOURI

to two similar letters such as "B" and "D" early in the learning sequence. Various combinations of acquisition stimuli (color, size, pictorial object, brightness) and sequences of presentation will be explored. Analysis of variance will then be attempted to establish relationships between types of acquisition stimuli, sequences of presentation, and ability to correctly identify the two letters. Previous knowledge of letter names, mental ages, visual perception scores (derived from the Frostig Developmental Test of Visual Perception) will also be monitored. Findings will be applicable to reading readiness programs.

Elementary through Secondary

86. Curriculum improvement program. (NPR)

Kirksville Public Schools, 401 E. McPherson, Kirksville 63501. John Goeke. USOE and State Board of Education support. 1966-1969.

Goals of this program are to: (1) adapt curriculum developments for local use; (2) conduct research study in composition instruction; (3) begin a pilot study of Programmed Instruction in reading and language; (4) develop in-service improvement by means of video-tape. After a year of study and planning, pilot studies dealing with major areas will be conducted. Several of these areas are: (1) composition instruction improvement program; (2) regular in-service program using video-tape; (3) cooperative planning activities to develop sequence and scope; (4) cooperative teaching activities; and (5) use of closed circuit television in language arts instruction.

NEBRASKA

Elementary through Secondary

87. Reading Clinic Service and Training.

Omaha Public Schools, Omaha, Nebraska 68105. Craig Fullerton. USOE support. Feb. 1966-Feb. 1969.

This project is concerned with four activities: (1) the establishment of an exemplary facility which is offered as a model for possible service to teachers and students in the development of adequate reading skill; (2) in-service training to teachers concerned with the correction or remediation of reading problems; (3) diagnosis of students with reading difficulty to include psychological and reading case studies; and (4) remedial treatment of students as Clinic staffing permits.

NEW HAMPSHIRE

Secondary

88. Salem High School -- Phillips-Exeter English Project.

Cogswell Hall, Northwood, New Hampshire 03261. Vincent P. Skinner. School support. 1965-1969.

NEW HAMPSHIRE

Students will study usage and structural problems as they occur in their own writing. Grammar-composition texts will be employed by the teacher and the students as a reference source only. Writing will be drawn directly from the students' readings and/or from personal experiences that parallel the selected readings. Frequent, short, direct papers will be preferred over long, generalized papers, and the teaching of outlining techniques will be abandoned in preference for the study of writing structure. Students will study vocabulary from the selected readings.

NEW JERSEY

Elementary

89. Comparison of three methods of beginning reading: initial teaching alphabet, diacritical marking system, and traditional orthography.

Rutgers - The State University, New Brunswick 08903. Edward B. Fry. USOE support. 1966-1968.

The researcher's main finding of no difference between methods on either of the standardized oral and silent reading tests, has been fairly well confirmed by other investigators. One interesting observation was that the variability between classroom means within one method was so much greater than the variability between the method means that it is difficult to see how anyone could ever place any credence in small method studies. Class size did not affect reading achievement. "Good teachers" as determined by our teacher-rating correlations did make a real difference in reading achievement. The main finding of this study was that it does not make much difference which method of beginning reading instruction you choose, ITA, DMS, or the traditional basal reader; the children learn to read equally well in any of them.

NEW MEXICO

Elementary

90. A reading project and action plan. (NPR)

Independent School District No. 22, Shiprock. Wallace Cathey. USOE support. On-going.

The objectives of this research project are: (1) to develop reading materials that are interesting to Navajo children, and that will motivate them to relate similar experiences of their own; (2) to develop a series of beginning readers that depicts the Navajo social setting and utilizes the science of linguistics; (3) to develop a series of beginning readers that depicts the Navajo social setting and utilizes material written around student background. The written material is based on the semantic and syntactic approach to reading; and (4) to develop illustrations and guidelines for the stimulation of oral response at the pre-school level. Other purposes and goals of this reading program are primarily to: (1) broaden the scope of the reading materials already developed by

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the research team; (2) broaden the scope of reading materials by developing deep-seated appreciation of cultural values; (3) respect the fact that the child's life is difficult in a harsh terrain, and help him to realize that he and his family are important and have individual worth; and (4) use objects and materials that are ordinarily a part of the Navajo child's wellspring of emotional experiences.

NEW YORK

Elementary through Adult

91.
A. Project Literacy: continuing activities.

Cornell University, Ithaca. Harry Levin. USOE support. July 1965-June 1967.

A 2-year supplementary program was conducted on "Project Literacy" at Cornell University. The wide preview of "Project Literacy" consists of instigating, stimulating, and then coordinating research in the area of reading. Activities of the initial study included forming a steering committee, establishing a set of research priorities, and compiling a list of scientists whose work was relevant to understanding the process of reading. In addition, four research planning conferences were held, covering the following topics: (1) psychological basis of reading skill; (2) linguistic and psycholinguistic disciplines and their relationship to reading; (3) motivational and sociological factors in reading; and (4) curriculum development and techniques of instruction. Continuing activities of the current follow-on program included: (1) a research planning meeting to add new members to the research consortium; (2) two conferences for presenting research methodology and results, allowing informal visitation and consultation among the participating researchers; (3) two 4-week curriculums; and (4) an experimental program in the first grade classrooms for intensive observation of the developed curriculums.

B. The analysis of reading skill: a program of basic and applied research.

Cornell University, Ithaca. Harry Levin, James J. Gibson, Eleanor J. Gibson, Charles F. Hockett, Rose-Marie Weber. USOE support. Sept. 1965-June 1968.

This program has been concerned primarily with psychological processes underlying reading skill and its acquisition. Experiments involving both children and adults have been carried out and are continuing on the following topics: (1) visual and auditory interference in visual tasks; (2) feature processing in letter discrimination; (3) the abstraction of spelling patterns; (4) the effect of grammatical structure or of instructions on the eye-voice span, mediated in comparison with direct visual perception; (5) the oral reading of spelling patterns and of homographs in semantic and syntactic frames; and (6) child-adult speech interaction. A transcription of morphons that map into both letters and phonemes was devised. An intensive analysis of the reading errors collected from classroom oral reading was completed.

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C. Test of a learning set procedure for the abstraction of spelling patterns. (NPR)

Cornell University, Ithaca. Eleanor J. Gibson, James Farber, Sharon Shepela. USOE support. 1964-1968.

The findings seem to indicate that spelling patterns have a structure in their own right, which apparently can be learned quite apart from the fact that every word produced maps predictably into the spoken language. Given a set of structured stimuli, (1) can a subject learn to discriminate among the stimuli on the basis of this structure, and (2) does a subject learn to *look for* such structure in new problems involving similar type of material? In a learning set experiment, these questions correspond to (1) whether there is learning within problems that transfers to novel problems involving the same structure, and (2) whether there is learning of *how to solve* discriminations involving patterns of different structure. The data reported are from a total of 12 kindergarten children who were able to complete the five days of testing, and from five first graders. There were a number of kindergarten children who, primarily for motivational reasons, could not finish. Because there were very great individual differences, the investigators looked at individual cases to see whether there were different learning styles. Most of the children fall into one of the three groups. (1) Several of the children (especially in the kindergarten group) reached criterion on only a few problems. (2) Another group of four children reached criterion on five or six problems, and typically stayed around chance performance on the others. (3) Four children (three in first grade and one in kindergarten) showed clear evidence of development of a generalized learning set. The progression in levels of abstraction in these styles of learning word discriminations or spelling patterns, suggests that it may be possible to work out a program for introducing problems so as to "shape" a child toward progressively higher order abstractions.

D. Grammaticality and the self-correction of reading errors. (NPR)

Cornell University, Ithaca. Rose-Marie Weber. USOE support. 1965-1968.

By investigating the nature of first graders' oral reading errors and their corrections of errors, the researcher has attempted to assess the expectation that these students' verbal responses will "make sense," i.e., that the responses will conform to the language patterns that they use. Grammatical acceptability was selected as the property of the erroneous response that would yield the most rewarding results in the analysis of the verbal context of an erroneous response, especially because grammatical structure, as the framework on which semantic and extralinguistic constraints rest, imposes the most specific constraints on the successive words in a sentence. The corpus of reading errors was collected in a single classroom during the last two months of the first-grade year. The children's oral performances were tape recorded weekly with no experimenter and no other child present. Familiar pages were chosen from stories in the materials that had already been covered in the regular reading session. The errors of both good and poor readers were found to be grammatically acceptable to preceding context in 90% of the cases. Those that violated the grammatical structure of the entire sentence were corrected more frequently, especially by the better readers.

E. A developmental study of feature-processing strategies in letter discrimination. (NPR)

Cornell University, Ithaca. Albert Yonas, Eleanor J. Gibson. USOE support. 1965-1968.

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The question here concerned whether people can change their perceptual processing strategies to include tests for the presence of only those stimulus features necessary for the task at hand. A theory has been proposed on perceptual learning which hypothesizes that differentiation requires the search for, and processing of, distinctive features of stimulus displays. These are analogous to Jakobson and Halle's distinctive features of phonemes. Furthermore, perceptual processing, given practice in a discrimination task, would be expected to progress toward strategies which use the most economical feature list. The researchers tried to demonstrate that such perceptual learning does occur when the task presented to the subject makes such a change adaptive.

92. Non-standard dialect. (NPR)

New York City Board of Education, Bureau of Curriculum Development, 131 Livingston Street, Brooklyn 11201. Support: ?. 1967.

The three general aims are: (1) to show that despite the existence of many dialects in the United States it is the right and the responsibility of the individual to acquire the standard English dialect in order to become an effective participant in the community; (2) to understand and practice the standard spoken language determined by circumstance and suitable to the place, time, and people involved; and (3) to acquire ease in the use of the standard English by learning effective listening skills and appropriate articulation and pronunciation.

93. A preliminary study of the structure of English used by Negro and Puerto Rican speakers in New York City.

Columbia University. William Labov. USOE support. 1965-1967.

This two-year study attempted to determine the socially significant variables in English structure which distinguish Negro and Puerto Rican speakers from the rest of the New York City speech community and defined those conflicts of the Negro and Puerto Rican vernaculars which interfere with the acquisition of reading skills. Pilot research adapted the techniques of previous New York City sociolinguistic studies, attempting to define the actual variables which were used later on. Interviewers and analysts were trained to use these techniques and measure the relevant variables.

94. A comparative study of two approaches to the teaching of reading in the national language (NPR)

New York University, New York City 10003. Nancy Modiano. USOE support. October 1964-September 1965.

Some conclusions reached were the following: (1) Children of linguistic minorities learn to read with greater comprehension in the national language when they first learn to read in their mother tongue then when they receive all reading instruction in the national language. (2) Teachers ability to communicate with their students and their attitudes toward them, more than their training or educational level, may influence the education of linguistic minorities. According to the researchers, this warrants further study. (3) A study should be conducted with a linguistic minority within the United States, preferably an urban minority, in which an experimental group is taught literacy in the mother tongue prior to reading in English, in order to determine whether the bilingual approach

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maintains its advantage with children who are exposed to the national language much more than were the subjects of this study.

Elementary

95. An investigation of the effects of Montessori pre-school training on perceptual and cognitive development of disadvantaged children.

Reading Center, Ferkauf Graduate School, Yeshiva University. S. Alan Cohen. Yeshiva University support. 1966-1969.

The study will include a longitudinal study of pre-schoolers and a comparison of pre-school methods on such variables as perceptual development, intellective functions, reading, oral language development, etc. Four classrooms of Puerto Rican and Negro disadvantaged pre-schoolers, ages 3-4, will receive one to two years Montessori training. They will be compared with four classes of Headstart pre-schoolers at the end of one, two and three years on the following dimensions: (1) visual motor and perceptual visual development; (2) patterns of intellective functioning (general intelligence, and behavior characterisitcs relating to concentration, persistence in problem solving, achievement set, etc.); (3) reading readiness and reading achievement in grade one.

96. Early identification and treatment of reading disabilities of emotional origin. (NPR)

William Asanson White, Institute of Psychiatry, Psychoanalysis and Psychology, 20 West 74th Street, New York. Zira DeFries. Lulu Lasker Estate and the Augusta B. Lyons Trust support. 1964 - 1967.

This project is a multidisciplinary effort to study the underlying mechanisms related to reading disability of essentially emotional origin and to evaluate the effects of a variety of treatment methods upon them. It was hypothesized that when various therapies were offered, the greatest improvement in reading skill would therefore result from combined psychotherapy and remedial reading and that this improvement would also correlate with improved expression of aggression and more adequately delineated sexual identification. The study population consisted of 20 third-grade boys, largely from lower- middle-income families, who met the screening criteria of normal intelligence, one year or more retarded in reading, no consistent evidence of organic dysfunction, and with problems in the area of expression of agression and/or sexual identification. Results of treatment showed no significant difference in reading improvement between therapy and control groups. The therapy groups, however, did show considerably greater qualitative gains manifested in better attitudes toward reading and greater self-confidence when compared with the control groups. Behavioral changes in regard to improved expression of agression were greatest in the groups which received psychotherapy. More adequately delineated sexual identification occurred uniformly in the psychotherapy and remedial reading groups but not in the control. Although the hypotheses were not upheld since no group showed significantly improved reading scores over any of the others, the qualitative findings suggest that therapy does make an impact upon attitudes and behavior above and beyond that directly translatable into a reading score.

97. Effects of non-verbal perceptual training on reading achievement. (NPR)

University of Rochester, David Elkind. USOE support. 1967.

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The major objective of this study will be to determine whether the reading skills of second-grade children will benefit from extended training in perceptual activities when this training is given by means of non-verbal teaching procedures. A secondary objective will be to give the principal investigator the experience of teaching young children over an extended period of time and so enable him to gear his future research to problems which are pertinent to educational practices as well as to psychological theory.

98. A study of the effectiveness of training for retarded readers in the auditory perceptual skills underlying reading. (NPR)

New York Medical College. Shirley Feldmann, Cynthia Deutsch. Support: ?. 1967.

Two studies were conducted to explore the relationship between the auditory skills of socially disadvantaged students and reading achievement. The effect of a developmental auditory training program on reading achievement and the effectiveness of different evaluative procedures for auditory perceptual skills were also tested. Sixty-four third-grade Negro and Puerto Rican children who were retarded readers were chosen as subjects. Three treatment groups and one control group were set up. The three treatment groups received varying combinations of auditory and reading training. There were 50 treatment sessions. Tests were administered prior to the treatment, immediately following the treatment, after 6 months, and after a year. Reliability coefficients, analysis of covariance, intercorrelations, and T-tests were used to analyze the data. No treatment group facilitated reading achievement. There were no group differences. None of the various combinations of reading and auditory programs seemed to affect improvement in reading. It was suggested that there might be interrelationships of teacher and pupil variables important in reading learning. Staff evaluations, references, additional results, tables, descriptions of tests, and appendixes are included.

99. An exploratory study of the relationship of auditory-visual and tactual-visual integration to intelligence and reading achievement.

Columbia University. Marguerite P. Ford. HEW support. April 1966-June 1967.

A comparison of auditory-visual and tactual-visual performance was proposed to determine the relationships to each other. An investigation was also made of the relationships to standardized measures of intelligence, reading achievement, and types of reading errors made on a reading test.

100. The effects of various approaches to beginning reading for disadvantaged children. (NPR)

Columbia University. Miriam L. Goldberg. Center for Urban Education support. 1967-1971.

This project is attempting to find answers to the following major questions: (1) What is the most advantageous point at which to begin reading? (2) What are the effects of structured programs in perception, language and concept training prior to beginning formal reading? (3) What are the effects of regularizing the sound-spelling relationships of the English language in the initial stages of reading? (4) What are the effects of the meaningfulness of the content to the experience of the children?

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101. The development of a beginning reading skills program using the Edison responsive environment instrument. (NPR)

Department of Psychiatry, New York Medical College. Lassar G. Gotkin. USOE support. 1966-1968.

A lesson series will be prepared for teaching basic visual, auditory, and conceptual skills to beginning readers, and for particular application to the socially disadvantaged child. The "Edison responsive environment instrument," an automated typewriter, will be used in the development activities. The series will be developed using individual learners, and will be continually revised as each learning sequence is written and tested. The final form of the lesson series will be tested in two experimental and two control conditions. The experimental conditions will consist of one group of children receiving instruction entirely on the Edison responsive environment instrument, and another group receiving teacher-instruction and machine-instruction combined. The control conditions will consist of one group receiving reading instruction entirely by the teacher, and another group receiving no reading instruction of any kind. Experimental and control groups will be compared at the end of the lesson sequence and at the end of the first grade by means of alphabet tests, auditory tests, and a reading prognosis test.

102. Eidetic imagery in children.

Department of Psychology, University of Rochester. Ralph N. Haber. USOE support. 1967.

A previous study will be continued to determine how a child's possession of eidetic imagery ability affects his development and performance on eidetic imagery is the ability of some children to maintain a complete visual image of a stimulus for long periods of time with great fidelity of detail. The fundamental methodology of the study will consist of determinations in the following areas of interest: (1) whether there are personal and intellectual consistencies characteristic of children with eidetic abilities; (2) the progression of a child's eidetic ability with the rest of his developmental patterns over a period of time; and (3) the extent to which the child is aware of his imagery and how he may respond to and use it. A cross-cultural study will investigate eidetic imagery and its relationship to acculturation and to differences in the acquisition of language.

103. The CRAFT Project.

City University of New York, 535 East 80th Street, New York 10021. Albert J. Harris, Coleman Morrison. USOE support. 1965-1968.

Some of the important results are the following: (1) The main finding which held for all five years, was that differences in class mean reading scores within each method were much larger than differences between the means for the approaches and the methods. (2) During the first and second grades, in both the original and replication studies, classes using the Skills-Centered Approach had a slightly higher means than those using the Language Experience Approach. This pattern was reversed by the end of the third grade, but at none of the grade levels were the differences significant. (3) Differences between results of the Basal Reader and Phonovisual Methods were generally small and non-significant. Similarly, differences between the Language Experience and Language Experience Audio-Visual Methods were not significant. (4) Children who were identified

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by their teachers as being early readers at the beginning of the first grade surpassed the total population on the pre-tests and on all sets of post-tests. The progress of this group suggests that an early start in reading may be beneficial to disadvantaged children who are initially high to readiness tests, or who, in the opinion of their teachers, possess some ability to read. (5) Pupil attitude toward reading was essentially similar in all methods after the first year. Several recommendations have come out of this research: (1) Teaching skills need to be improved, and therefore it is recommended that in-service workshops and expert consultative help be provided for all teachers and especially for those with minimal experience (2) The comparison of methods, at least those which rely exclusively on the components of one particular instructional approach should be abandoned. It is recommended that efforts be made to try to determine which combination of instructional components will be most suitable in teaching disadvantaged children. Since there were very large differences in achievement among the classes in each method, research to clarify the teacher behavior associated with optimal results is also recommended. (3) Kindergartens for the disadvantaged should develop programs to foster social and emotional growth. (4) CRAFT results have shown a significant relationship between teacher satisfaction with a method and her results with it, but do not provide a causal explanation. Further study is needed to clarify this important question. One possibility is that when teachers find that a method works they learn to like it, even if originally opposed to it. The alternative is that some teachers can do better with one kind of method and other teachers with a different method, so that method should be fitted to the teacher's characteristics.

104. A voluntary prekindergarten language development and reading program for the entire four-year-old population of a city. (NPR)

Mount Vernon Public Schools, Mount Vernon, New York. John H. Martin. USOE support. 1967.

A demonstration project is proposed for language development and reading of preschool children using the Edison responsive environment instrument. Children from various ethnic and socioeconomic levels will be exposed to a language development program at one of four centers. Physical and psychometric tests will be administered upon admission and evaluations made of the academic consequences upon classifications of children by race, sex, intelligence, socioeconomic status, and identified handicaps, physical and psychological. Language experiences, community production of a transferable model are the anticipated outcomes.

105. Identification assessment and prediction of reading competency in deaf children. (NPR)

Lexington School for the Deaf, Jackson Heights 11370. Lillian C.R. Restaino. USOE support. March 1966-December 1968.

This project investigated the differences in performance of poor and competent deaf readers on a test battery of related abilities ranging from perceptual tasks to verbal conceptualization tasks. From the results obtained the researchers will be able: (1) to describe those abilities which are most significant to reading success, and (2) to select those test items for a diagnostic test battery which will best aid in prediction of reading success.

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106. Comparison of three methods of teaching reading in the second grade.

Syracuse University. William D. Sheldon, Nancy J. Nichols, Donald R. Lashinger. USOE support. August 1965-January 1968.

Some important results of this research were: (1) The treatment groups did not differ significantly in intelligence as measured on a group test at beginning first grade. (2) Analysis of 18 reading readiness subscores revealed no significant differences between treatment groups except for one subscore. A significant difference in Auditory Discrimination-Rhyming Words was found to favor the Basal Reader Group. (3) No significant differences were found in reading or related skills achievement level of the three treatment groups at the beginning of the second-grade instructional period. (4) No significant differences between treatment groups were found in pre-first-grade school attendance. All three approaches to primary instruction that were studied proved to be effective for reading instruction at second-grade level. Although some significant differences were noted in some of the sub-skills or related skills of the total reading process as they were measured in this study, none of the approaches was demonstrated to be superior in all aspects of reading. A follow-up research project was concerned with the reading ability of 376 third-grade children who participated in the more extensive study during their first and second years in school. In general, the focus at the grade three level was toward the reading achievement of the total group in relation to the different methods of reading instruction which they had received in the three original treatment groups. In particular, the present study sought to identify disabled readers among the grade three population, to determine their characteristics and to ascertain whether or not they were identifiable in the early stages of reading instruction. In addition, observations were made to determine the nature of reading instruction and ancillary services provided for disabled readers in a number of the schools.

107. An evaluation of STAR, or the effects of training and deputizing indigenous adults to administer a home-based tutoring program to first graders in an urban depressed area. (NPR)

Mobilization for Youth, Inc., 214 East Second Street, New York 10009. Abraham J. Tannenbaum. USOE support. 1963-1967.

To raise the literacy levels of disadvantaged children through the use of indigenous non-professionals in a home-based tutoring program, the Supplementary Teaching Assistance in Reading (STAR) program offered reading readiness instruction to 490 first-grade children of lower-class Puerto Rican origin. Monolingual and bilingual non-professionals either tutored the child in the home with the parent observing and supplementing the instruction or taught the parent directly and had no contact with the child. The lessons in reading readiness were organized around code breaking, formal language, and visual-perceptual exercises.

Secondary

108. Reading, success and personality value-systems syndrome: a thirty year then and now study at the junior high school level. (NPR)

University of Rochester. Irene J. Athey. USOE support. 1967.

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The study was conducted in the following three phases: (1) the construction of new scales composed of personality items which significantly differentiated good and poor readers at the ninth-grade level in 1936; (2) a longitudinal application of these scales to the same sample of students when they were in the seventh, eighth, and ninth grades in 1933 and 1934; and (3) a cross-sectional replication after 30 years. Specific personality characteristics hypothesized from an integrated Erikson-Holmes Theory were consistently related to reading in the seventh, eighth, and ninth grades, and for two similar groups 30 years later.

Adult

109. A literacy program for adult city core illiterates.

State University of New York at Buffalo, ABE Reading Research, 98 Winspear Avenue, Buffalo 14214. Don A. Brown, Anabel Newman. USOE support. Oct. 1966-June 1968.

This is a three-part study designed to investigate: (1) the common learning characteristics of adult city core illiterates in order to provide information for the improvement of reading programs in basic education for such adults; (2) the identification of variables which would prove effective in predicting the success of adult illiterates in learning to read; and (3) the use of the Initial Teaching Alphabet as a vehicle in teaching beginning reading to city core illiterates.

NORTH CAROLINA

Elementary

110. I.T.A. (initial teaching alphabet).

Lucille Hunter School, 1018 East Davie Street, Raleigh 27601. W.W. Hurdle. Ford Foundation support. 1968.

Goal is to upgrade reading proficiency in the primary grades by employing the i.t.a. method. Classes are ungraded and teachers make use of the team-teaching approach. Children shift from group to group according to achievement, thereby identifying themselves not with any one teacher, but with several.

111. Training in visual perception for young deaf children to stimulate school readiness. (NPR)

Governor Morehead School, Raleigh. Rachael F. Rawles. USOE support. 1967.

This demonstration project was conducted: (1) to study the effectiveness of a visual training program in stimulating and accelerating progress of young deaf pupils in speech reading, reading words and object association, and speech; (2) to determine whether there is apparent lasting carryover value from the training; and (3) to develop classroom materials that may be used to develop visual perception skills. Test results were analyzed to determine: (1) whether gains in learning aptitude scores can be seen from the training; (2) whether gains in visual discrimination are observed from the training; and (3) whether any gains noted immediately after the training seem to be retained over a period of time.

OHIO

Elementary

112. The influence of vision training upon the subsequent reading achievement of fourth-grade children (NPR)

Child Study Center, Ohio State University, Columbus 43210. C.B. Huelsman, Jr. USOE support. 1967.

A determination will be made as to whether corrective training in visual skills, making perception possible, can contribute to the process of learning to read and to overall reading success. The specific problem will be one of discovering whether or not vision training results in improved visual skills, and, in turn, whether vision training is related to the improvement in reading achievement. A follow-up study will be carried out one year after all training and instruction is completed to compare the reading progress of those children who received vision training with those who did not.

113. Greater Cleveland Reading Program. (NPR)

Educational Research Council of America, Rockefeller Building, Cleveland 44113. Eleanor Zirzow. Grant Foundation support. On-going.

The objective of the project is to improve the quality of reading instruction for children with a total language arts program. The three levels of the Greater Cleveland Reading Program in i.t.a. contain structured sequential materials to motivate and develop the immense potential of children as well as teachers. The first level readiness is begun in kindergarten with sensory-motor tasks, visual and auditory discrimination training, metric language patterns, sound symbol film strips, readers and worksheets. The second level continues with readers and workbooks to develop and enrich comprehension, other reading skills, and creative and functional writing. The third level, implemented during the second grade, makes detailed provision for transition in reading, writing, spelling, and language usage from i.t.a. to Traditional Orthography. Supplemental i.t.a. materials in Social Science, Psychology, and Mathematics are also available.

OREGON

Elementary

114. Special program in reading improvement, speech, composition, guidance, and industrial education for educationally deprived children.

Union High School District No. 2, Klamath Falls 97601. Louis F. Corrigan. USOE support. Nov. 1966-June 1968.

This project will provide remedial activities for educationally deprived children through the employment of lay assistants in the areas of language arts and industrial education and through the use of reading laboratories designed to have many varieties of materials to stimulate learning in a physical setting that supports effective use of these materials. The laboratories contain individual carrels, controlled readers, various tachistoscopes, rateometers, listen-and-read stations, and related equipment and devices. It will also provide for an intensive program in testing to measure the effectiveness of the project and to furnish a basis for sounder counseling to help the disadvantaged make sound vocational and academic choices.

OREGON

115. A study of reading disability in the U.S. -- occurrence, causes, characteristics, and relationship to other abnormalities.

University of Oregon Medical School, 3181 S.W. Sam Jackson Park Road, Portland, Oregon 97201. John B. Isom. USOE support. 1966-1969.

The goals of this investigation are: (1) to determine the incidence of reading disability; (2) to develop a readily applicable operational definition and to delineate those tests or sub-tests, if any, which will permit early prediction of reading disability; and (3) to detect those features, if any, of the child's family and environmental settings and early educational settings which appear to be adverse or detrimental to proper school performance and which are of such nature that they may be relatively easily altered, modified or eliminated. The investigator also intends to determine whether a given child shows a considerable variation in his relative rank-order of reading achievement in school performance during the early grades and those ranges of rank-ordering which would permit a teacher to feel relieved regarding the child's future performance or which would indicate that special attention must be given to the child early in order to prevent the persistence or development of reading disability.

116. Diagnostic techniques in reading for the classroom teachers.

University of Oregon, Eugene. Carl J. Wallen, Jordan Utsey. No formal support. Continuing.

The objective of the project is to develop an instructional package to train elementary school teachers to provide the most appropriate reading instruction for each child by determining the child's: (1) functional reading levels; (2) attainment of specific word recognition skills; and (3) attainment of specific comprehension skills. The package prepares teachers with a critical instructional skill, the ability to provide for children's individual reading skill needs. The importance of the instructional skill is attested to in: (1) teachers' criticisms of in-service courses which fail to provide instruction in diagnosing children's reading skill needs, and (2) the growing popularity of reading programs which expect of the teacher to be able to attend to individual skill needs.

Secondary

117. A sequential curriculum in language, reading, and composition (oral and written), grades 7 through 12. (NPR)

University of Oregon, Eugene. Albert R. Kitzhaber. USOE support. 1962-1967.

The evaluation of the experimental curriculum produced by the Oregon Curriculum Study Center was conducted along three lines: (1) construction of tests to assess the extent to which the curriculum objectives were attained by the students; (2) comparisons between "project classes" and "non-project classes;" (3) solicitation of teachers' comments about the curriculum materials. The findings from the evaluations activities lead to the following conclusions: (1) On the basis of student performance on tests, the curriculum objectives were realistic and within the grasp of the majority of the student population. It seems possible to introduce basic concepts at the appropriate degree of complexity in accordance with Bruner's idea of the learning process. (2) It is possible to construct reliable objective tests that elicit the behavior desirable in an English curriculum.

OREGON

(3) The curriculum did not have any ill effects on student achievement as measured by standardized achievement tests. (4) The teachers who participated in the project found the materials appropriate for the students for whom they were intended. (5) The teacher materials were of great value, and served in part to educate the teacher in the ways necessary in order to teach the experimental curriculum competently.

PENNSYLVANIA

Elementary

118. Two approaches to reading instruction. (NPR)

Reading Laboratory, University of Pittsburgh 15213. Donald L. Cleland. USOE support. 1965-1967.

This study was conducted to compare the effectiveness of the "Language Experience Approach" and the "Basal Language Arts Approach" when applied to second- and third-grade populations. The reading achievement of children as they progress through grades two and three will be evaluated. One-half of these children will use natural language patterns in listening, oral communications, written communications, and reading. They will receive instruction as a whole class, in small groups, and individually. The latter half will be taught by the basal approach, using basal readers, and language arts materials. Independent pupil variables will include sex, mental ability, socioeconomic status and social integration. Independent teacher variables will include effectiveness, academic preparation, and teaching experience. Supervision and consultation services will be made available to teachers in both groups. Findings will add to research knowledge on methods of teaching reading in the primary grades.

119. Factors affecting learning to read. (NPR)

Department of Public Instruction, Harrisburg 17126. Robert B. Hayes. USOE support. July 1966-December 1967.

The study attempted to follow first-and second-grade students into grades two and three, as intact classes, to determine the effects of continued instruction in four different approaches to reading instruction. The approaches were: (1) a basal reader program; (2) a phonic program; (3) an eclectic, combination program with basal and phonics; and (4) a language arts approach using the initial teaching alphabet as a medium. The investigator found that four of five phonics classes, three of five i.t.a. classes, only two of five combination classes, and only two of four basal reader classes had 50% or more pupils achieving at least one-half grade above their predicted levels in word meaning, word study skills, and paragraph meaning in June, after the third grade.

120. Beginning reading.

University of Pittsburgh. Paul M. Kjeldergaard. USOE support. 1966-1967.

The purpose of this project is to develop a novel beginning reading program, distinguished from the usual beginning reading program by the regularity of

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sound-symbol relationships and the controlled introduction of elements. This system employs traditional orthography with a special font to enhance the discriminability of similar graphemes. The sequencing of the material is governed primarily by phoneme frequency in printed text, which provides the greatest utility for the reader and maximum flexibility for the materials writer. Secondary criteria considered in sequencing are grapheme and phoneme discriminability, and syllable and word frequency.

121. A study of the development of certain language skills of third-grade children who experienced different approaches to reading instruction in the primary grades. (NPR)

Lehigh University, Bethlehem 18015. Peter A. Lamana. No formal support. 1966-1967.

There was a significant difference in the skill of word recognition, word meaning and reading comprehension in favor of the children taught to read with the basal approach. There was a significant difference in the number of running words used in written composition, the number of different words, and the number of different polysyllabic words used in such writing in favor of the children taught to read with the Initial Teaching Alphabet. There were no significant differences among the groups in the number of different spelling errors made in written composition. In interpreting these conclusions, it should be kept in mind that only the differences in the number of running words, different words, and polysyllabic words were both statistically significant and large enough to be of practical importance. The differences in reading skills, although statistically significant, appeared to be too small to be of practical importance. Thus, it would appear that it makes little practical difference what approach is used in teaching reading in the primary grades provided the approach incorporates a unified language arts program.

122. Comparison of a basal reader approach and a linguistic approach in second and third grade reading instruction. (NPR)

University of Pennsylvania, Philadelphia 19104. J. Wesley Schneyer. USOE support. 1965-1968.

A two-year follow-up study will determine the relative effectiveness of a Basal Reader approach and a Linguistic approach to teaching reading. An assessment will be made of the reading achievement of children of different intelligence levels who initially learned to read under one of the two different approaches. Seven hundred children will be included in each of the two reading approach groups. Children in the Linguistic group will follow the eight readers and practice books based upon the linguistic principles of Fries. These pupils will then move into basal readers and other reading materials according to their instructional levels. The basal reader group will continue receiving instruction in the Scott-Foresman series according to their proper instructional levels. Reading achievement of the children in both groups will be measured by silent and oral reading tests at the end of the second grade, and gain at the end of the third grade.

Secondary

123. Pattern practice for students using a non-standard dialect. (NPR)

Pittsburgh Public Schools, Pittsburgh 15213. Ann Anthony, Lois M. Grose. USOE support. Continuing.

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The goals of the project are: (1) to determine the non-standard speech patterns of 7th and 8th grade students in the city of Pittsburgh; (2) to produce pattern practice materials to help students develop standard speech as a second dialect; and (3) to train teachers to use these materials most effectively.

124. Written language abilities of high school student enrolled in regular and remedial English classes. (NPR)

Pennsylvania State University, University Park 16802. G. Phillip Cartwright. No formal support. 1967.

This study is one of a series designed to test the reliability and validity of certain dimensions of composition writing. Factor analytic and other statistical studies suggest that, in evaluating students' compositions, teachers should use analytic methods rather than the single overall impression method. Specifically, the factors of vocabulary, grammatical structure, fluency, and content are considered to be important and relatively independent dimensions in composition writing.

125. Identification and measurement of reading comprehension skill of high school students. (NPR)

Educational Research and Service Bureau, University of Pennsylvania, 3810 Walnut Street, Philadelphia 19104. Frederick B. Davis. USOE support. 1967.

Appropriate experimental techniques will be used to determine the percentage of unique variance in carefully constructed measures of seven operational skills that form the basis of comprehension in reading at the secondary school level. These skills will be identified on the basis of subjective and empirical analysis. Two panel tests of each of the skills will then be developed and administered to approximately 1,000 12th grade students during several testing sessions. Complete data analysis and interpretation of test results will be made to determine the items that exactly measure the skill specified. The results of this study will provide a fundamental basis for understanding the nature of comprehension in reading, provide a more valid and effective way of measuring it, and make available a rational basis for developing learning exercises to improve comprehension in secondary school and college students.

Elementary through Secondary

126. Speech improvement program.

Nebinger Elementary School, Philadelphia 19103. Marion L. Steet. USOE support. 1966-1968.

This year's (1967-1968) program was expanded to include a study of the comparative successes of respective groups of students using these materials, on the one hand, under the direction of teachers who had had fairly extensive training and had been involved in the actual development of the materials with, on the other hand, students using these materials under the direction of teachers receiving the materials for the first time. At the same time, a small project involving some 30 teachers, K-12, has been established under the auspices of the Speech Improvement Office, to investigate, research, and develop structural materials

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to enlarge students' thinking abilities through enlarging their use in language of a variety of structural elements: i.e., subordination, movable elements, conditional statements, indicators, etc. One of the most important purposes of this program has been to produce materials which will provide teachers with the means for handling instruction in standard usage.

RHODE ISLAND

Secondary

127. Remedial reading: research and development. (NPR)

Department of Social Welfare, 1 Washington Avenue, Providence. Ellsworth Smith. State support. 1966-1968.

This project will test the hypothesis that delinquency is related to school failure which, in turn, is caused by an inability to read with facility. The study is being done with 200 boys and girls ages 12 to 18 in the Rhode Island Training Schools. One half of the population is given intensive remedial and developmental reading instruction. A comparison will be made with the post-release activities of those not given the instruction.

College

128. Preparation of materials and course of study for improving the command of standard English of entering freshmen at Tougaloo College, Mississippi. (NPR)

Brown University, Providence. W. Nelson Francis, Beryl L. Bailey, Robert Meskill. Rockefeller Foundation support. 1965-1968.

A sketch grammar of Mississippi Negro dialect has been developed and teaching materials (including laboratory tapes) for teaching standard dialect are in preparation. Techniques for analysis of a sizable sample of spoken language by computer and also for retrieval of information about grammatical deviance of the dialect are being developed at the present. Once the computer analysis techniques have been perfected, they will be used to extract a great deal more information about the corpus of spoken and written Mississippi English collected at Tougaloo. During the academic year 1967-68, trial, testing, and revision of all phases of instructional materials is being carried out along with an evaluation of the whole program. So far, two semesters-worth of freshmen-year courses have been completed.

TENNESSEE

Pre-school

129. A home teaching program for parents of very young deaf children. (NPR)

Vanderbilt University School of Medicine, Nashville 37202. Freeman McConnell, Kathryn Horton. USOE support. Feb. 1966-Jan. 1969.

TENNESSEE

The purpose of this project is to demonstrate and assess the value of an intensive home teaching program for parents of very young pre-school deaf children under three years of age. This program is conducted in a model home setting where demonstration and practice of activities by the teachers are planned to enhance the development of communication skills as they may be incorporated into the routine of everyday living in the home, the natural milieu of the young child.

Elementary

130. Comparison of several approaches for teaching Braille reading to blind children. (NPR)

George Peabody College for Teachers, Nashville. Randall K. Harley. USOE support. 1967-1970.

This project is divided into three phases. Phase I which included planning, developing codes, and a teacher workshop for participants in Phase II has been completed. Phase II is a pilot study involving three different approaches to teaching Braille reading and two different kinds of textbooks, one a synthetic approach and one an analytic approach. Six classes of beginning Braille readers in six different residential schools are participating. The three approaches employ Grade II Braille which is the standard method now in use throughout the country, Grade I Braille in which no word or part-word contractions are employed so that every word is spelled out in full, and a newly developed Initial Teaching Alphabet code employing a different Braille symbol for each of the ITA characters.

TEXAS

Elementary

131. Scaling the comprehensibility of printed material.

University of Texas, El Paso. Edmund B. Coleman. National Science Foundation support. June 1965-June 1968.

The underlying assumption is that a child will begin reading to himself and teaching himself much sooner if his first reading materials are engineered to be as learnable as possible. There are characteristics of printed material that make them easy or hard to learn. Quantitative data is needed that will permit an education engineer to manipulate the characteristics so as to increase the learnability and teaching efficiency of the first lessons. To construct a maximally learnable sample of materials, the constructor must select the most learnable sample of language units. Thus, the base of quantitative data can be conceptualized as hundreds of rank-orderings of language units, e.g., a rank-ordering of the letters sequenced as to discriminability, a rank-ordering of the phonemes sequenced as to pronunciability, etc. Such rank-orderings must be organized into a systematic matrix and the gaps filled by performing hundreds of other experiments. A group of approximately twelve reading researchers who attended the American Educational Research Association Pre-Convention Institute in Reading in 1968 are now beginning the experiments.

TEXAS

132. Intermodal transfer in normal and dyslexic children. (NPR)

Fort Worth Society of Crippled Children and Adults, Inc., 4700 South Riverside Drive, Fort Worth 76119. Claude B. Elam. HEW-Public Health Service support. 1967-1968.

The objectives of this study are to: (1) secure normative data on intermodality transfers; (2) secure data on dyslexic children; (3) categorize each dyslexic child on the basis of his most apparent intermodality disjunction and his most favorable modality for mediation; and (4) apply the mediating principle, using discrimination and sensory preconditioning techniques. If the hypotheses being investigated prove valid, recommendations can be made for the training of dyslexic children.

133. San Antonio Language Research Project. (NPR)

University of Texas, Austin 78712. Thomas D. Horn. USOE and University of Texas Research and Development Center Funds support. 1964-1971.

The major goals are as follows: (1) the improvement of learning and self-concept development of bilingual Mexican-American children; (2) the simultaneous development of language (including instrumentation for evaluation) and concept learning through the presentation of specially designed curriculum materials using audio-lingual techniques in English and in Spanish; (3) the improvement of teaching techniques through in-service education of teachers of bilingual, disadvantaged children. The special audio-lingual techniques were presented using AAAS science materials as the "culture fair" curriculum content. The lessons were presented to three experimental groups: (1) content taught in oral-aural English; (2) content taught in oral-aural Spanish; and (3) content taught as specified by AAAS. A fourth group received the "regular" science lessons taught in accordance with district curriculum. The program was subjected to experimentation and revision. Extension of the audio-lingual techniques into reading and social studies as well as a program to improve self-concept is in progress.

College

134. The establishment of a graduate study program for the training of research specialists in reading education. (NPR)

Southern Methodist University, Dallas. Edward L. Pratt. USOE support. 1967.

A graduate study program will be established for training research specialists in reading education. The program will be designed to require a trainee to study a school reading program analyze relevant test data, identify problems, suggest improvements, and conduct a reading-related experiment. The substantive focus will be on the disciplines that impinge on the reading process and on the physiological conditions that affect it. Specialists and information from the fields of medicine, sociology, psychology, statistics, and education will be utilized.

UTAH

Elementary

135. Granite School District, exemplary center for reading instruction, first-grade reading research project.

Granite School District, 3690 South 2860 East, Salt Lake City 84109. Ethna R. Reid, Gabriel Della-Piana, Myra H. Castner. USOE support. 1966-1967.

Over 1,000 first-grade children are involved in an evaluative study of six experimental reading programs (McGraw-Hill Programmed Materials, S.R.A. Basic Readers, I.T.A., Harper-Row Linguistic Readers, Listen, Look, and Learn, and E.D.L. Supplementary Materials). Group readiness and I.Q. tests were administered as pre-tests throughout the 29 experimental and 18 control classrooms. Post-tests will include sub-sample tests of oral reading to assess variations in fluency and word attack, syntactic and phonetic evaluation of unaided written composition to assess control of written expression, and flashed presentation of spelling patterns to investigate possible differentiation in the units utilized in reading. The Illinois Test of Psycholinguistic Abilities will also be administered to a sub-sample in an investigation of the relationship of this test, and its sub-sections, to reading achievement. Standardized group reading achievement tests will be administered to the entire population.

VERMONT

Elementary

136. A multidirectional approach to language disorders.

Center for Disorders of Communication, DeGoesbriand Memorial Hospital, Burlington. Frank J. Falck. PHS Neurological and Sensory Disease Service support. 1966-1969.

This is a community service project designed to: (1) organize an expanded evaluation program staffed by representatives of speech pathology, audiology, psychology, language and appropriate medical specialties; (2) expand a comprehensive therapy program in which currently employed techniques can be directly applied to a significant number of children handicapped with multiple communication disorders; and (3) develop appropriate modifications of therapy techniques necessary to make them applicable to some of the large numbers of rural children in this area for whom regular frequent attendance at a clinical center is impossible.

VIRGINIA

Elementary

137. Program for the remediation of the oral language of the dialectally handicapped child.

Arlington County School System, Arlington. Charles J. Davis, Elizabeth Johns. USOE support. 1966-1967.

VIRGINIA

The goals will be: (1) to determine the effects of the systematic manipulation of channel and code redundancy on the listening behavior, reading skills, and academic achievement of economically deprived children, and (2) to determine the effects of a manipulation of the redundancy and the temporal aspects of the auditory feed-back signal on the speech-language output of economically disadvantaged children.

138. The relationships of attitudes to reading comprehension in the intermediate grades. (NPR)

Bureau of Educational Research, University of Virginia, Charlottesville. Milton D. Jacobson, Joseph C. Johnson. USOE support. 1967.

In a study to determine the effect of attitudes on learning, the literal and interpretative comprehension abilities of intermediate grade children on thematically based reading selections were compared with their attitudes toward that material. Three of the most common reading themes inherent in children's stories were determined. At each grade level, three stories were selected for each theme. Subjects were 285 children in grades 4, 5, and 6. Each child read nine stories. An attitude inventory was constructed for each theme. For each story, comprehension tests of 10 literal and 10 interpretative questions were administered. An analysis of the data led to the following conclusions. The importance of attitudes in improving comprehension was questionable. When different variables were controlled, attitudes appeared not to function appreciably in intermediate grades and to function differently for literal and interpretative comprehension. Literal and interpretative comprehension were differentially affected by sex. Relationships between attitude and comprehension were unaffected by race or socioeconomic status.

139. Value implications in children's reading material. (NPR)

University of Virginia, Charlottesville. Howard A. Ozmon, Jr. USOE support. 1966-1967.

This research included: (1) an analysis of value themes in five series of basal readers at the primary level; (2) the selection and classification of value themes according to dominance; (3) categorization of these themes in terms of a major educational philosophy; and (4) a factor analysis of value themes.

140. Listen and learn. (NPR)

419 W. Broad Street, Falls Church. Judith Thelen. USOE support. Continuing.

Parents taped Science and History books for grades four, five and six so that students having difficulty in these subjects, because of a reading problem, could listen to the content material and comprehension of the material would thereby improve. Re-reading of the text was aided by the use of study guides written by the reading consultant. These guides provided for vocabulary improvement and development of word skills.

Elementary through Secondary

141. Covert oral behavior during silent reading.

Hollins College, F.J. McGuigan. USOE support. Sept. 1967-Aug. 1969.

VIRGINIA

The broad objective of this project is to ascertain the nature and the function of the covert oral response. The specific objectives are: (1) to ascertain whether increases in speed of interpreting language stimuli (as in reading and listening) results in changes in covert oral behavior; (2) to directly measure the verbal mediating response in terms of covert oral behavior; (3) to specify the temporal relation between the critical brain processes and the covert oral responses that occur during silent reading, memorizing, listening, etc; (4) to study the relationship between class of auditory stimulus (language vs. non-language) and amplitude of covert oral behavior during silent reading; (5) to reduce the amplitude of covert oral behavior during silent reading and to study resulting changes in reading proficiency; (6) to compare several measures of covert behavior as a function of language (reading, listening, memorizing) and non-language tasks (listening to music, to nothing); (7) to test the hypothesis that amplitude of covert oral behavior is greater in students with a poor quality of handwriting than in excellent writers; (8) to study the effect of varying interest value and emotionality of prose being read on covert behavior.

Elementary through Adult

142. Facts of normal vision in reading or learning deficit. (NPR)

The College of William and Mary, Williamsburg 23185. E. Rae Harcum. USOE support. 1967-1968.

This project investigates the way selected populations of observers, including children, college students, and aged veterans, develop strategies in apprehending and assimilating information which is visually presented. The emphasis is on the search for mechanisms which are found both in tasks of serial learning and in tachistoscopic pattern perception. Examples of independent variables are element-isolation, level of practice, intrinsic directional characteristics of the stimuli, instructional and experiential set, and educational level. The dependent variable of greatest interest is the distribution of errors in retention for the individual elements of the stimulus pattern.

WISCONSIN

Elementary through College

143. Articulation, reception, and word-reading skills (initial reading research program). (NPR)

Research and Development Center for Cognitive Learning, University of Wisconsin, Madison. Richard Venezky, Robert Calfee. USOE support. 1966-1968.

These studies are part of a long range effort to improve the teaching of reading through a clearer understanding of the specific language skills required by the reading task and the specific skills which the child brings to the reading situation. Currently under investigation are the articulatory and speech discrimination abilities of young children and the spelling-to-sound translation habits of good and poor readers. Articulation data are obtained through an imitation task. The child is presented with a list of tape-recorded words or read a list by an experimenter and is asked to repeat each word he hears. The articulation data

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are then correlated with data on the same children from a reception task, as well as with data from tests of spelling-to-sound, phonemic segmentation, and other higher level skills. An AB-X paradigm is used for reception tests rather than one explicitly requiring same-different judgements. The child hears pronunciation "A", pronunciation "B" and then either "A" or "B"; he is asked to indicate which. The AB-X sequences on each test consist of correct and incorrect pronunciations of items on the articulation test; the incorrect pronunciations are those errors that children made on the articulation test. The second series of experiments concerns spelling-to-sound skills. Studies of the pronunciation and spelling of 20,000 common English words by Venezky have shown that English orthography contains considerably more patterning than had been assumed previously. The correct pronunciation of a letter or letter sequence is often signaled by graphemic, morphemic or phonemic features of the word in which it occurs. We are asking whether speakers use these rules in pronouncing English words they have never encountered before, and whether speakers' pronunciation habits are related to reading abilities. Of special concern are speakers' strategies in pronouncing digraph vowel spellings, single vowel letters, and the letters c, g, and th, all of which are associated with several possible sounds. Subjects are shown synthetic English words conforming to English spelling patterns and asked to pronounce them. Both the latency of response and the response are recorded. Subjects are classified as good or poor readers on the basis of standard reading tests (e.g., Iowa, Stanford-Binet) and teacher evaluation. From the results of tests conducted last year with native American English speakers -- third, sixth, and eleventh graders and college sophomores -- the following generalizations were made: (1) Good readers are distinguished from poor readers by the consistency of the good readers' responses, whether or not their responses are correct while poor readers show less consistent responses. (2) Although good readers give correct pronunciations significantly more often than poor readers, both groups fail to make use of all the major regularities which relate spelling to sound. (3) Those rules which are acquired seem to be learned by the sixth grade; older subjects do only slightly better. This investigation is now being extended to younger children and a greater variety of spelling-to-sound patterns.

Secondary

144. Workshop in new approaches to teaching English. (NPR)

University of Wisconsin, 432 North Lake Street, Madison 53706. George W. Hartung, James C. Stalker. Local school funds and NDEA support. 1967-1968.

The goal of the workshops is to provide the public school teachers of Wisconsin with sufficient basic information in English linguistics to utilize to the best advantage the curriculum material published by the Department of Public Instruction.

145. The effectiveness of programmed materials in English syntax and the relationship of selected variables to the learning of concepts. (NPR)

Research and Development Center for Learning and Re-Education, University of Wisconsin, Madison. Nathan S. Blount. USOE support. 1966-1967.

The Research and Development Center for Learning and Re-Education at the University of Wisconsin conducted an experiment to test and improve its programmed instructional materials in structural and transformational grammar and to extend knowledge about certain variables related to efficiency of learning concepts, the IQ

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levels and sex of students, and the effectiveness of advanced organizers, review of material, negative instances of concepts, informative feedback, and writing exercises. For each programmed lesson completed by the 48 pre-eighth graders, time for completion and percentage of errors were recorded. Results showed that the average completion time of a lesson was well within the limits of a class period and that, with an error rate of 7.3 percent per lesson, the material was effectively learned. Multiple choice and completion tests measured learning progress. Sex and IQ showed high and consistent correlations -- females tended to score higher on tests than males and test results closely paralleled IQ levels. Those students who received informative feedback and written exercises scored consistently higher on tests than those who did not receive these aids.

WYOMING

Elementary

146. Identification in the kindergarten of factors that make for future success in reading, identification and diagnosis in potential reading disability cases.

Wyoming State Department of Education, Cheyenne. Wilma E. Hirst. USOE support. 1965-1968.

Progress and achievement in beginning reading shown by a selected group of children will be followed through three years of school to determine whether identification can be made at the kindergarten level on what individual factors point out potential success or failure in reading. Approximately 280 children, entering kindergarten, will be chosen for the sample population. They will be representative of high, average, and low socioeconomic school districts. Each child will be interviewed and administered tests designed to yield information on intelligence, creativity, reading readiness, socioeconomic background, and social-emotional maturity. Standardized reading tests will then be administered to each child as he completes the first and second grade. Their reading test scores will be analyzed in relation to the background factors determined at the kindergarten grade level. The results of this work can be used in programs involving the early identification of and early remediation in potential reading disability cases.

CANADA

Elementary

147. Kindergarten perception training -- its effect on first-grade reading. (NPR)

University of Alberta, Alberta, Canada. Jean E. Robertson. USOE support. Continuing.

Fifteen research studies in child development are surveyed. Particular emphasis is given to Feldman who recommends a "code-first" program for beginning reading. The term "code" refers to the letter symbols representing the characteristic speech sounds of English. Some of the problems in perception and the implications for kindergarten perception training programs are considered on the basis of the "code-first" approach. Specific suggestions for activities which would develop a child's auditory perception are described. The role of language in the development of perceptual activity is also discussed, and studies of how the child acquires syntax are reviewed.

UNITED KINGDOM

Elementary

148. A study of reading ability in Welsh and English. (NPR)

University of Wales, University College, Singleton Park, Swansea. Evan Glyn Lewis. Schools Council, England and Wales support. 1967-1971.

This work is part of a larger project of research in bilingual education. In 1957 a study of reading ability in the two languages of bilingual children in Wales was made. It included a study of reading interest as well as reading ability. This study will replicate the previous research using the same sample of schools, though clearly not the same children. The present research is meant to provide guidance to teachers concerning the reading interests of bilingual children in both languages, and especially to provide information about shift in interest from the minority language when it is the mother-tongue to the second (major) language...namely English.

149. Questioning and answering behaviour of young children.

The University, Southampton, England. W.P. Robinson. Rountree Memorial Trust Fund support. 1966-1969.

The goals of this research project will be the: (1) development of a theoretical system for describing the form and content of children's answers and questions, based upon Halliday's Scale and Category Grammar; (2) analysis of social class and I.Q. differences in questioning and answering behaviour, with particular reference to questions using special interrogative words (wh-'s and how); (3) specification of social-psychological origins of such differences along with an assessment of their educational consequences; and (4) execution of remedial programme and its evaluation.

UNITED KINGDOM

150. Teaching of English to the children of West Indian immigrants. (NPR)

The University of Birmingham, Birmingham, England. James Wight. Schools Council support. 1967-1970.

The goals of this study are: (1) to study the problems, linguistic, educational and psychological involved in the teaching of English to West Indian immigrants' children; (2) to experiment with the various possible appropriate teaching techniques; and (3) to produce some form of teaching materials which will be appropriate. A questionnaire will be designed to reveal the most serious problem areas where detailed research would probably prove most beneficial. Based on the findings of a teacher questionnaire and the linguistic study already being carried out, efficient teaching techniques will be developed. A year has been spent on a general analysis of linguistic differences between the West Indian dialect and Standard English and on the construction of pilot tests to narrow down the areas that produce the most serious difficulties in understanding. This work will provide the basis for more detailed linguistic analysis.

151. Spelling reform and initial teaching alphabets. (NPR)

Department of Comparative Philology, University of Manchester, Manchester 13, U.K. W. Haas. Mont Follick Bequest to the University support. Duration - undetermined.

The researchers are concerned with the general theory of writing systems and especially with the comparative efficiency of different alphabetic conventions for various purposes. A central part of the research is an investigation of methods, by which children are taught to read and write English. They are also asking whether there is any special merit in teaching through a more regular initial alphabet; and if there is, the researchers go on to ask what sort of alphabet would be most suitable (a) for the English speaking child and (b) for the foreigner learning English.

Secondary

152. Applications of linguistics in the teaching of English as the mother tongue. (NPR)

University of Edinburgh, Scotland. William B. Currie. Local support. Nov. 1965-Nov. 1968.

The goals will be: (1) to provide a course for able school pupils of 13 1/2 to 14 1/2 years of age in which the study of the English language would be related to and graded by a coherent body of linguistic theory; (2) to consider and demonstrate a methodology for teaching language in this way; and (3) to test the materials experimentally under school conditions. A 25-lesson course, designed to be used for one school period in each week, has been written. It is hoped eventually to provide further courses for the secondary school and primary school, applying inductive discovery techniques in the structure of a linguistically graded course for each stage.

UNITED KINGDOM

153. Linguistics and English teaching. (NPR)

Communication Research Centre, Department of General Linguistics, University College London, London W.C.1, England. M.A.K. Halliday, K.H. Albrow. Nuffield Foundation, Department of Education and Science of the British Government support. October 1964-September 1967 (Stage 1).

This investigation, based on research in linguistics and the contemporary English language, will study the contribution to be made by linguistics to the advancement of the teaching of English as a native language in schools and other institutions. The project is one of collaboration between teachers and linguists. The researchers will develop Stage II of the project during the period October 1967 to September 1970. This would be a development stage in which, in addition to continued experimentation in schools and production of guidance materials for teachers, the project would provide courses of in-service training for teachers and lecturers in colleges of education.

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Arizona

Reading Clinic, Arizona State University, Tempe 85281
Reading Development Center, University of Arizona, Tucson 85721

Arkansas

South Central Region Educational Laboratory Corporation, National Old Line Building, Little Rock 72201

California

Arcadia Reading Clinic, 1012 South Baldwin Avenue, Arcadia
Academic Guidance Services, 409 North Camden Drive, Beverly Hills 90210
West Valley Center for Educational Therapy, 7120 Remmet Avenue, Canoga Park 91303
Reading Center, Chico State College, Chico 95926
National Society for Vision and Perception Training, P.O. Box 541, Chula Vista 92010
Arcadia Reading Clinic, 535 South Second Avenue, Covina
Leila Armstrong Reading Clinic, 7707 Bairnsdale Street, Downey 90240
Aldrich Reading Clinic, 807 North Brand Blvd., Glendale 91200
South Bay Center of Educational Therapy, 1093 Pier Avenue, Hermosa Beach 90254
Southwest Regional Educational Laboratory, 11300 La Cienega Blvd. South, Inglewood 90304
Arcadia Reading Clinic, 1262 North Hacienda Drive, La Puente
Jessie Ramming School, 301 West Pine Avenue, Lompoc 93436
Marianne Frostig Center of Educational Therapy, 7257 Melrose Avenue, Los Angeles 90046
Pinewood Reading and Tutoring Schools, 327 Fremont Avenue, Los Altos 94022
Tomales Bay Visual Center, Shoreline Drive, Marshall 91607
DeWitt Reading Clinic, 2107 Jefferson Street, Napa 94558
Dubnoff School for Educational Therapy, 10526 Victory Place, North Hollywood 91606
Valley Reading Centers, 12139 Riverside Drive, North Hollywood 91607
California Reading Clinic, 4225 South Saviers Road, Oxnard 93030
Professional Group Services, 148 Nemaha Street, Pomona 91766
The Children's Clinic, Institutes for the Achievement of Human Potential, 545 West 17th Street, San Bernardino 92405
Clinical Training Center, San Diego State College, 5402 College Avenue, San Diego 92115
Far West Regional Educational Laboratory, 116 Montgomery Street, San Francisco 94105
DeWitt Reading Clinic, 1543 Fifth Avenue, San Rafael 94901
California Reading Clinics, 2955 Moorpark Road, Thousand Oaks 91360
California Reading Clinics, 943 East Meta Street, Ventura 93001
Broman's Reading Center, 1548 Sunnyvale Avenue, Walnut Creek 94596

Colorado

Rocky Mountain Regional Educational Laboratory, 105 Filmore, Denver 80206

Connecticut

The Orton Society, Inc., Pomfret 06258

Delaware

International Reading Association, Tyre Avenue at Main Street, Newark 19711

District of Columbia

Center for Applied Linguistics, 1717 Massachusetts Avenue, N.W., Washington, D.C. 20036
Reading Center, George Washington University, 2029 G. Street, N.W., Washington, D.C. 20008
The Reading Clinic, D.C. Public Schools, 34th & Lowell Streets, N.W., Washington, D.C. 20008

Florida

Reading Research Laboratory, University of Miami, Coral Gables 33124
Reading Laboratory and Clinic, University of Florida, Gainesville 32601
Educational Guidance Services, 7200 S.W. 39 Terrace, Miami 33155

Georgia

The Schenck School, Inc., 282 Mt. Paran Road, N.W., Atlanta 30327
Brandon Hall School of Tutoring, Dunwoody 30043
Southeastern Educational Corporation, 3450 International Blvd., Suite 211, Hapeville 30054

Hawaii

Hawaii Curriculum Center, Room 306, 1040 S. King Street, Honolulu 96814

Illinois

National Council of Teachers of English, 508 South Sixth Street, Champaign 61820
Reading Research Foundation, Inc., 3849 West Devon Avenue, Chicago 60645
Reading Research Center, University of Chicago, 5835 South Kimbark Avenue, Chicago 60637
Reading Clinic, Curriculum Center, Northern Illinois University, DeKalb 60115
Central Reading and Speech Clinic, 325 West Prospect Avenue, Mount Prospect 60056
Rockford College Reading Clinic, Rockford 61101
Illinois State-Wide Curriculum Study Center, 1210 West California Street, University of Illinois, Urbana 61803
Cooperative Educational Research Laboratory, Inc., 715 Foxdale, Winnetka 60093

Indiana

ERIC Clearinghouse on Reading, 204 Pine Hall, Indiana University, Bloomington 47401

Indiana (continued)

English Curriculum Study Center, Indiana University, 1125 Atwater Street, Bloomington 47401
Reading Center, Ball State University, Muncie 47306

Iowa

Educational Clinic, Department of Education and Psychology, State College of Iowa, Cedar Falls 50613

Maine

Reading Research Institute of Fryeburg Academy, Fryeburg 04037

Maryland

Central Children's Evaluation Clinic, University of Maryland School of Medicine, Baltimore 21201
Reading Clinic, Johns Hopkins Hospital, Baltimore 21205
Reading Center, College of Education, University of Maryland, College Park 20742

Massachusetts

Reading Center, Boston University, 755 Commonwealth Avenue, Boston 02215
The Clearinghouse on Educational Differences, Harvard University, Larsen Hall, Appian Way, Cambridge 02138
Institute of Educational Innovation, 55 Chapel Street, Newton 02158
Perceptual Education Research Center, 57 Grove Street, Wellesley 02181

Michigan

Center for Research on Language and Language Behavior, 220 E. Huron Street, Ann Arbor 48108
Reading Improvement Service, Institute for Human Adjustment, Graduate School, University of Michigan, Ann Arbor 48104
Communication Skills Centers, Detroit Public Schools, 5057 Woodward, Detroit 48202
Michigan-Ohio Regional Educational Laboratory, School Center Building, Detroit 48202
Reading and Guidance Center, Education Department, Michigan State University, East Lansing 48823
Improvement Services, University College, Michigan State University, East Lansing 48823
Kerwin Vision Clinic, Perceptual Vision Testing and Training, 34829 Michigan Avenue, Wayne 48184

Minnesota

Upper Midwest Regional Educational Laboratory, Inc., 2698 University Avenue, St. Paul 55104

Mississippi

Reading Services Center, University of Mississippi, University 38677

Missouri

Mid-Continent Regional Educational Laboratory, 104 East Independence Avenue, Kansas City 64106
Central Midwestern Regional Educational Laboratory, Inc., 10646 St. Charles Rock Road, St. Ann 63074

Nebraska

Reading Clinic, Omaha Public Schools, 3819 Jones Street, Omaha 68105

New Jersey

Reading Center, 10 Seminary Place, New Brunswick 08901
The Midland School, P.O. Box 126, Readington Road, North Branch, New Jersey 08876

New Mexico

Southwestern Cooperative Educational Laboratory, 117 Richmond Drive, N.E., Albuquerque 87106

New York

Study Center for Training Disabilities, State University of New York, Albany
Curriculum Laboratory, State University of New York at Albany, Room B-11, 1223 Western Avenue, Albany 12203
Reading Center, State University of New York at Buffalo, Foster Hall, Library Circle, Buffalo 14214
Reading and Study Skills Center, 3407 Delaware Avenue, Buffalo 14217
Instructional Resources Center, State University of New York, College at Fredonia, Fredonia 14063
Curriculum Enrichment Center, Guilford Elementary School Building, Guilford 13780
Project Literacy, Cornell Research Park, Building Number 6, Ithaca 14850
Reading Center, Hofstra University, Hempstead, Long Island 11550
Center for Urban Education, 33 West 42nd Street, New York 10036
English Institute Materials Center, 4 Washington Place, New York 10003
Reading Center, Teachers College, Columbia University, New York 10027
Reading Center, Ferkauf Graduate School, Yeshiva University, New York 10019
Schools for the Future Reading Clinic, 821 Broadway, New York 10003
Reading Center, State University College, Potsdam 13676
Eastern Regional Institute for Education, 111 Furman Street, Syracuse 13210
Reading Center, 508 University Place, Syracuse University, Syracuse 13210

North Carolina

Reading Center, Appalachian State Teachers College, Boone 28607
Regional Educational Laboratory, Rougemont 27572

Ohio

Educational Development Center, Baldwin-Wallace College, Berea 44017

Oklahoma

Reading Center, Department of Education, Oklahoma State University, Stillwater 74074

Oregon

Children's Hospital School, 3575 Donald Street, Eugene 97405
Northwest Regional Educational Laboratory, 710 Southwest 2nd Avenue, Portland 97204

Pennsylvania

Reading and Study Center, Department of Education, Lehigh University, Bethlehem 18001
The Pathway School, P.O. Box 181, Norristown 19404
Institute for Learning Disabilities, Hahnemann Medical College and Hospital, Philadelphia 19102
Director of Reading Services, La Salle College, Philadelphia 19141
Educational Research and Service Bureau, 3810 Walnut Street, Philadelphia 19104
Reading Clinic, Temple University, Broad and Montgomery Streets, Philadelphia 19122
Research for Better Schools, Inc., 121 South Broad Street, Philadelphia 19107
Annenberg School of Communications, University of Pennsylvania, Philadelphia 19104
Reading Laboratory, Learning Research and Development Center, University of Pittsburgh, 400 South Craig Street, Pittsburgh 15213
Curriculum Study Center, Carnegie Institute of Technology, Schenley Park, Pittsburgh 15213
Reading Center, Pennsylvania State University, University Park 16802

South Carolina

Reading Clinic, School of Education, University of South Carolina, Columbia 29208

Tennessee

Belwether School, Spring City 37381

Texas

Southwest Educational Development Corporation, 5th Floor, Commodore Perry Hotel, 800 Brazos Street, Austin 78701
Reading-Study Center, 202 V. Hall, University of Texas, Austin 78712
Reading Clinic, Southern Methodist University, Dallas 75222
Edgemoor School for Children with Learning Disabilities, 2711 Fountain View, Houston 77000
Les Petits Nursery and Kindergarten, 6637 Teluco Avenue, Houston 77055
Institute for Reading Disability, 204 E. Rhapsody, San Antonio 78216

Utah

Granite District Reading Center, 3690 South 2860 East, Salt Lake City 84117

Vermont

Reading Center, University of Vermont, Burlington 05401
Center for Disorders of Communication, Medical Center Hospitals of Vermont, Burlington 05401

Virginia

Diagnostic Special Education School, Tidewater Rehabilitation Institute, Norfolk 23507

Washington

Reading Center, Western Washington State College, Bellingham 98225

West Virginia

Appalachia Regional Educational Laboratory, P.O. Box 1348, Charleston 25325
Reading Center, College of Human Resources and Education, West Virginia University, Morgantown 26506

Wisconsin

Reading-Study Center, Department of Education, Wisconsin State University, Eau Claire 54701
English Study Center, University of Wisconsin, Madison 53706

FOREIGN SOURCES:

Great Britain

Schools Council Project in English, Institute of Education, The University, Leeds, England
English-Teaching Information Centre, The British Council, State House, High Holborn, London W.C. 1, England
Reading Research Unit, Institute of Education, University of London, 2 Taviton Street, London W.C. 1, England
The Reading Centre, Moray House College of Education, Holyrood Road, Edinburgh, 8, Scotland